VOL. 68 NO. 8

textile bulletin

JUNE · 15 · 1945

Carding, one of the chief bottlenecks in textile production, may be accelerated considerably with excellent over-all results. For concise particulars, see Page 19.

JUN 18 1945

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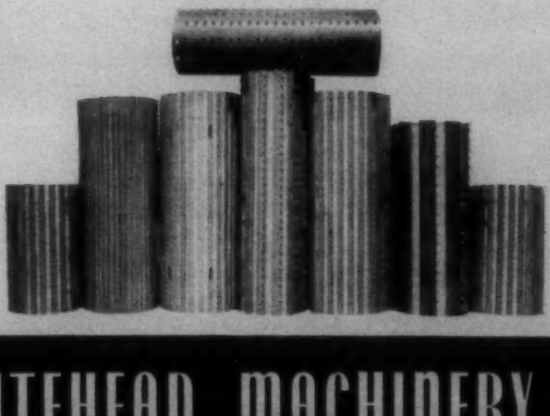
SOURCE OF TROUBLE

Difficulties in subsequent manufacturing processes may often be traced back to the Opening Room. Inadequate cleaning of the cotton can cause plenty of grief all down the line.

It is important therefore that pickers should operate at maximum efficiency, and this is impossible unless the machines are equipped with DEPENDABLE APRONS.

The quality materials and careful workmanship that go into every textile apron made by this company show that we realize the importance of the particular function which this equipment performs.

☆ OUR APRONS LAST LONGER AND DO THE JOB BETTER ☆



☆ QUICK DELIVERY FOR STANDARD PICKERS FROM STOCK ☆

TROY WHITEHEAD MACHINERY COMPANY
Phone 3-9831 CHARLOTTE, N. C. P. O. Box 1245

ABP

ABC

ADVERTISERS INDEX—PAGE 47

"CHARLOTTE"

LONG DRAFT
Spinning APRONS

Fit the Situation, because they're "TAILOR-MADE"

Giving completely satisfactory service in scores of Southern Spinning Mills, Charlotte "Tailor-Made" Long Draft Spinning Aprons have won their fame on *performance* . . . Back of this splendid performance, there are facts and reasons worthy of the serious consideration of every factory head.

CUTTING—done with the same eye for accuracy that a tailor exercises in cutting his cloth.

FIT—made exactly, precisely, unerringly to your specifications and in any size or thickness.

MATERIAL—only carefully selected, highest grade calf skin used.

WORKMANSHIP—skilled craftsmen with many years' experience handle every detail of the production.

MANUFACTURING FACILITIES—Made in a special apron department equipped with every modern machine which contributes to the manufacture of Long Draft Spinning Aprons.

OUR convenient location in the midst of the Southern textile manufacturing area, is an important factor in rendering "service when you need it."

CHARLOTTE
LEATHER BELTING COMPANY
★
CHARLOTTE, NORTH CAROLINA
★

Published Semi-Monthly by Clark Publishing Company, 218 W. Morehead St., Charlotte, N. C. Subscription $1.50 per year in advance. Entered as second-class mail matter March 2, 1911, at Postoffice, Charlotte, N. C., under Act of Congress, March 2, 1897.

FACTORING

More and more, the word "COMMERCIAL" is recognized as the "distinguishing mark" in factoring. It is the symbol of long experience, complete facilities and resources, and a knowledge of every branch of the textile industry.

We will gladly explain in detail what *COMMERCIAL FACTORING* can mean to your business in new opportunities and increased profits.

COMMERCIAL FACTORS CORPORATION

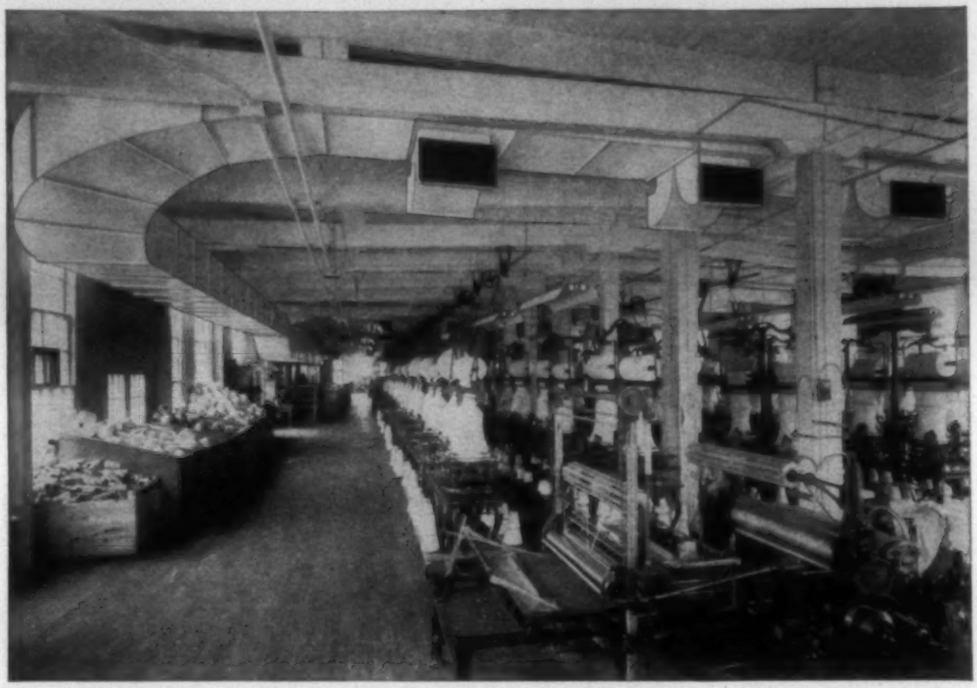
Fred'k Vietor & Achelis, Inc. Established 1828
Scheler, Schramm & Vogel Established 1838
Peierls, Buhler & Co., Inc. Established 1893

TWO PARK AVENUE, NEW YORK

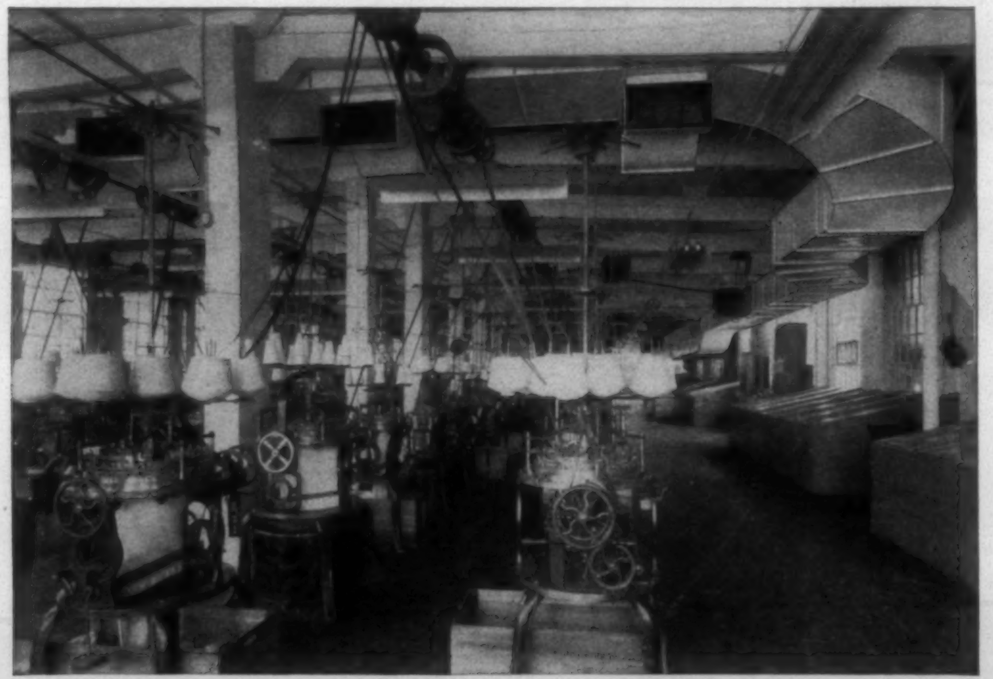
EUGENE G. LYNCH, 80 FEDERAL STREET, BOSTON, MASS.
T. HOLT HAYWOOD, WINSTON-SALEM, NORTH CAROLINA

Production Goes Up—"Seconds" Go Down

BAHNSON CENTRAL STATION IN KNITTING MILL



Bahnson engineers here developed a practical solution to a specific problem made difficult by the height of machinery and interfering beams, by bringing direct duct distribution of air to the center of the alleys.



Production went up and "seconds" decreased almost immediately when Bahnson Central Station Air Conditioning System was installed in this knitting mill.

With all windows closed this Bahnson Installation maintains 55% relative humidity and 82° F. room temperature.

Bahnson System

POSITIVE CIRCULATION · LOWER OPERATING COST

AIR CONDITIONING ENGINEERS

THE BAHNSON CO. WINSTON-SALEM, N. C.

886 DREWRY ST.
ATLANTA, GA.

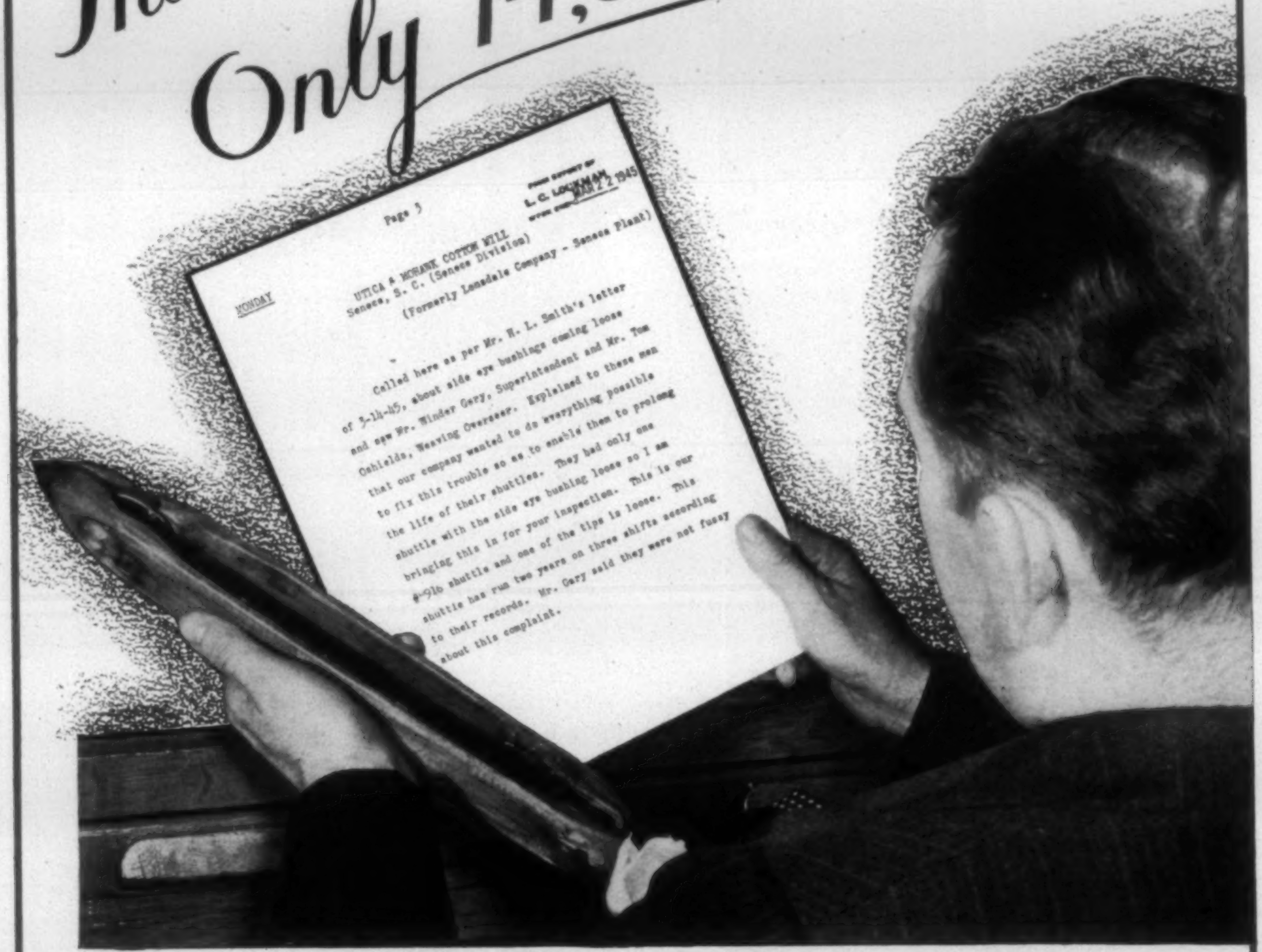
93 WORTH ST.
NEW YORK CITY

976 WEST 6TH ST.
LOS ANGELES, CAL.

703 EMBREE CRESCENT
WESTFIELD, N. J.

W. J. WESTAWAY CO., LTD.
HAMILTON, ONTARIO

This Shuttle Ran Only 14,872 Hours!



L. C. LOCKMAN
MAY 22 1945

Page 3

MONDAY

UTICA & MOHAWK COTTON MILL
Seneca, S. C. (Seneca Division)
(Formerly Lonsdale Company - Seneca Plant)

Called here as per Mr. H. L. Smith's letter of 3-14-45, about side eye bushings coming loose and saw Mr. Winder Gary, Superintendent and Mr. Tom Oshields, Weaving Overseer. Explained to these men that our company wanted to do everything possible to fix this trouble so as to enable them to prolong the life of their shuttles. They had only one shuttle with the side eye bushing loose so I am bringing this in for your inspection. This is our #-916 shuttle and one of the tips is loose. This shuttle has run two years on three shifts according to their records. Mr. Gary said they were not fussy about this complaint.

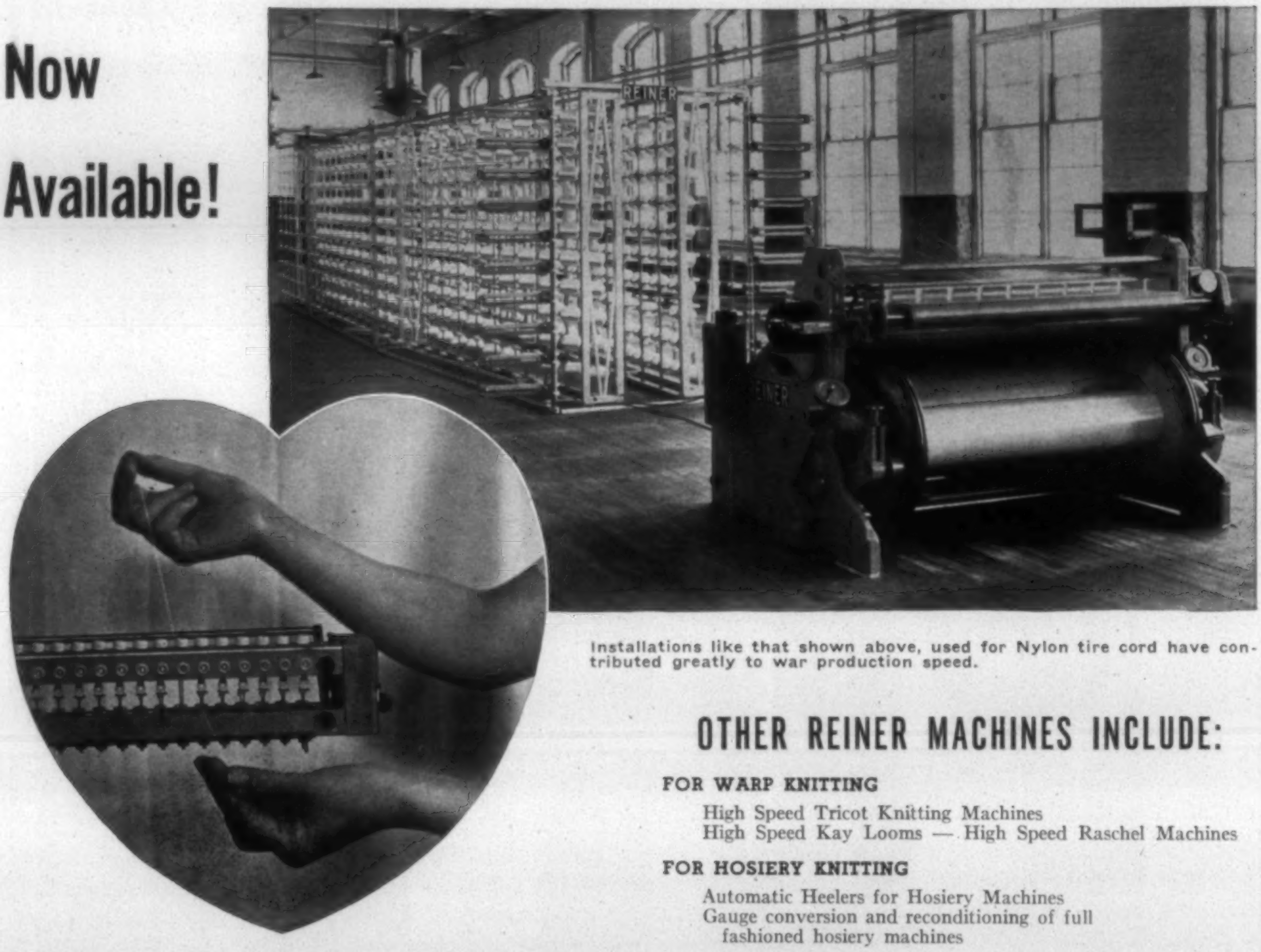
Congratulations Mr. Gary and Mr. Oshields for this splendid example of excellent loomfixing.

It should prove an impressive example to others of the importance of good loomfixing in prolonging the life of their shuttles.

Draper Corporation
Atlanta Hopedale Spartanburg

The Super-Efficient REINER WARPER AND CREEL—

Now Available!



Installations like that shown above, used for Nylon tire cord have contributed greatly to war production speed.

HEART OF THE WARPING OPERATION

This Mercury Thread Stop Motion is not subject to corrosion or affected by lint—important for safe high speed warping. In a class by itself as a stop motion—dependable, efficient and more effective.

This motion can be applied to any standard creel.

BEAMER FEATURES

(1) Constant thread speed.
(2) Easy Doffing.
(3) Direct Beam Drive, instead of friction drive.
(4) Slow Starting Speed, independent of warping speed.
(5) Controlled hardness or softness of the warp beam.

CREEL FEATURES

(1) Overhead Magazine Delivery.
(2) All Steel Construction.
(3) Suitable for Rayon or Cotton Cones.
(4) Movable Tension Gate for Balloon Control, for different size packages.

OTHER REINER MACHINES INCLUDE:

FOR WARP KNITTING

High Speed Tricot Knitting Machines
High Speed Kay Looms — High Speed Raschel Machines

FOR HOSIERY KNITTING

Automatic Heelers for Hosiery Machines
Gauge conversion and reconditioning of full fashioned hosiery machines

FOR WARPING

High Speed Warping Machines (full width and sectional)
Magazine Creels — Jack Creels
Thread Tensions (counterbalanced and disc)
Thread Stop Motions

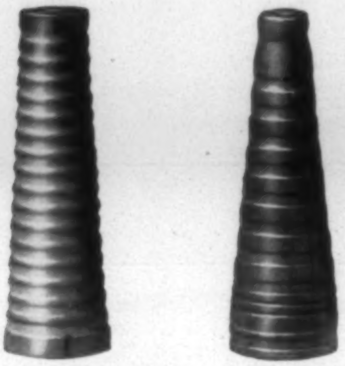
FOR EMBROIDERING

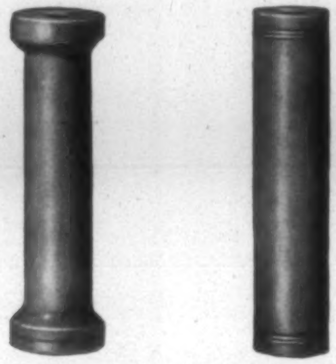
Automatic Embroidery Machines (10 and 15 yard lengths)
Automatic Bobbin Winding Machines
(for embroidery and quilting machines)
Pattern Card Punching Machines — Repeating Machines

ROBERT
REINER
INCORPORATED
WEEHAWKEN, NEW JERSEY

Ten minutes from New York City, 41st St. near 8th Ave. by Public Service Bus—No. 67 or 61, via Lincoln Tunnel, get off at Pleasant Ave., Weehawken. Tel.: Union 7-0502—7-0503—7-0504—7-0505.

CUSTOM-BUILT CONES . . . *by the Million!*





MILLIONS of Cones and Rolls flow from the efficient production lines of US plants to textile plants throughout the world. Yet, if each one were individually custom-built, it could not be keyed more closely to the specific needs of the purchasers.

REASON for this pleasing paradox is the US approach to winding problems. A US representative applies an 87-year experience to your requirements, then recommends Cones and Rolls best adapted to reducing your costs, improving your products.

PUT US CONES AND ROLLS IN YOUR POST-WAR WINDING PLANS

THAT'S WHY U S Cones and Rolls are right in step with every advance in winding practice. That's why so many new developments, like the Cork Cone, are available first from US. And that's why you can look to US for tested improvements post-war.

YOUR NEEDS will be quickly interpreted by a mill-wise US representative. And US, with five manufacturing plants North and South, can handle any sized order. For *custom-built* quality, specify US Cones, Rolls, Bobbin Shuttles, Spools, Tubes, and related products.

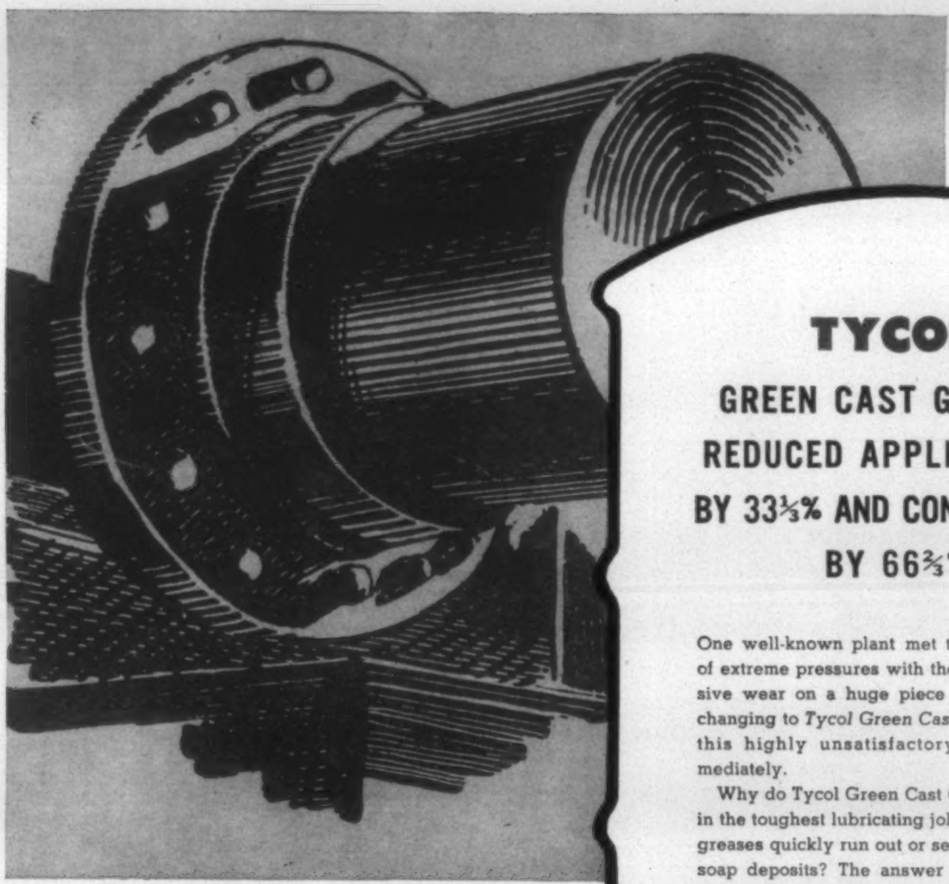
US BOBBIN & SHUTTLE CO.

PROVIDENCE, R. I.
GREENVILLE, S. C.
CHICAGO AGENT:
Albert R. Breen,
80 E. Jackson Blvd.

LAWRENCE, MASS.
CANADIAN AGENT:
Montreal, Que. — Hamilton, Ont.
W. J. Westaway

JOHNSON CITY, TENN.
CHARLOTTE, N. C.
ALABAMA AGENT:
Young & Vann Supply Co.
Birmingham

"Engineered Lubrication"...



TYCOL

GREEN CAST GREASES REDUCED APPLICATIONS BY 33⅓% AND CONSUMPTION BY 66⅔%

One well-known plant met the usual trouble of extreme pressures with the resultant excessive wear on a huge piece of equipment — changing to *Tycol Green Cast Grease* stopped this highly unsatisfactory condition immediately.

Why do Tycol Green Cast Greases stand up in the toughest lubricating jobs — where other greases quickly run out or separate into caked soap deposits? The answer is simple. Tycol Green Cast Greases are made from high quality cylinder stock and well refined neutral oil combined with a minimum of soap for a given consistency. Green Cast Grease is water repellent . . . and is engineered to "take it" under all conditions.

A Tide Water Engineer will be glad to give you full information.

DRUMS! DRUMS! DRUMS!

War needs make it extremely important that all empty drums be returned as soon as possible.

TYCOL

TIDE WATER

MAKERS OF THE FAMOUS VEEDOL MOTOR OIL
Eastern Division:
17 Battery Place, New York 4, N. Y.

...the TYCOL way

CUTS DOWN REPAIRS...
SPEEDS UP PRODUCTION

If you want peak efficiency . . . low-cost operation – turn to Tycol "Engineered Lubrication" for all-important help in securing these results. Why? Because each Tycol lubricant is scientifically engineered to meet definite service conditions . . . to reduce wear and maintenance costs to a minimum. That's why so many successful operators have turned to Tycol for low-cost lubrication.

In developing this individualized line of lubricants, Tide Water has complete control over its own products – from oil field, through transportation, to refining. The most modern processes are used to refine selected crudes . . . to blend and compound Tycol's "specifically engineered" oils and greases.

For complete information regarding the specific oils and greases best suited to meet your requirements, call or write your nearest Tide Water Associated office. There a Tide Water engineer, thoroughly experienced in all phases of industrial lubrication, will give you the full benefit of his knowledge.

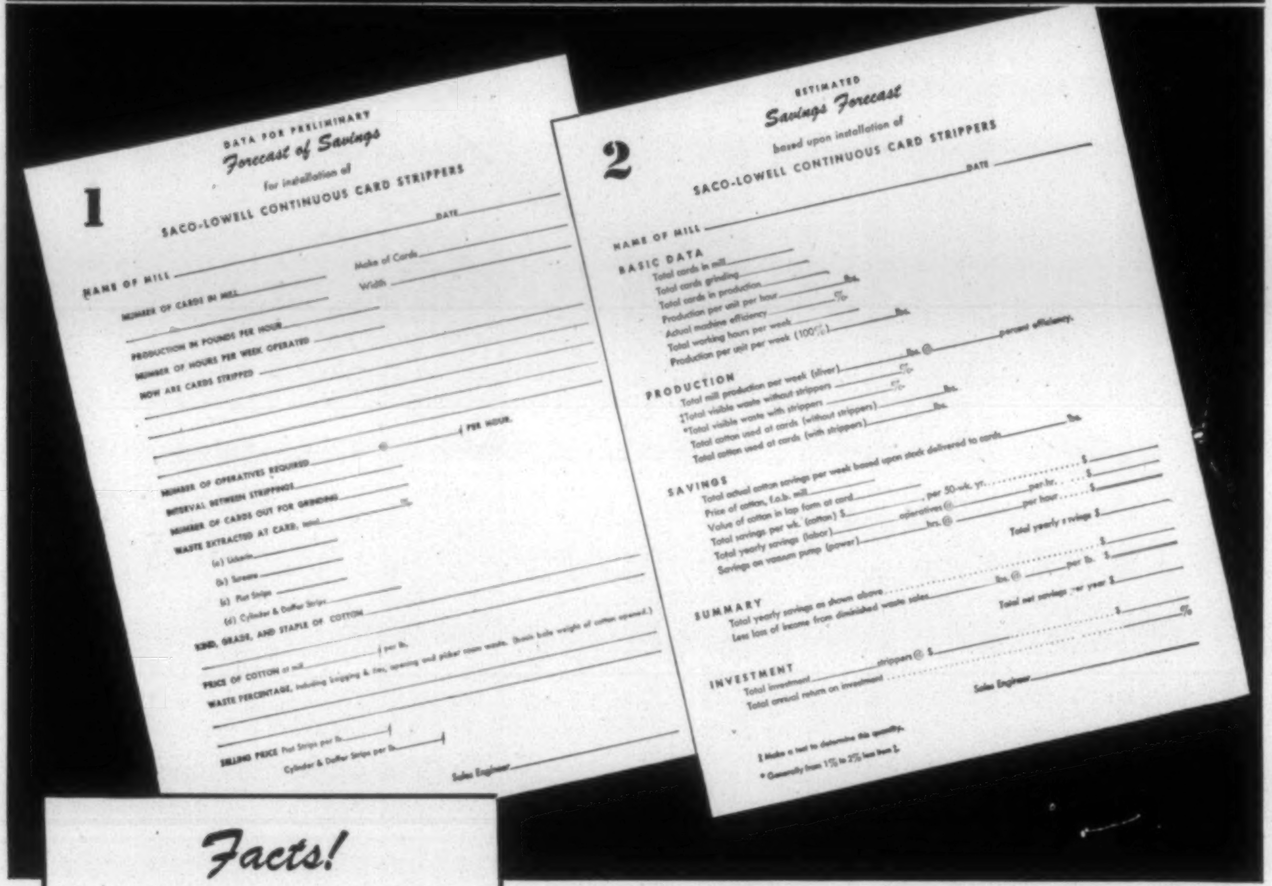
Have you received your copy of "Lubricania"?

This informative handbook, "Tide Water Associated Lubricania", gives clear, concise descriptions of the basic tests used to determine important lubrication properties – Pour Points, Viscosity, Neutralization, and many others. For your FREE copy write: Tide Water Associated Oil Company, 17 Battery Place, New York 4, N. Y.

ASSOCIATED OIL COMPANY

Principal Branch Offices:
Boston • Philadelphia • Pittsburgh • Charlotte, N. C.

STOP THAT PROFIT LEAK IN THE CARD ROOM



1

DATA FOR PRELIMINARY

Forecast of Savings

for installation of

SACO-LOWELL CONTINUOUS CARD STRIPPERS

DATE

NAME OF MILL

NUMBER OF CARDS IN MILL

Make of Cards

Width

PRODUCTION IN POUNDS PER HOUR

NUMBER OF HOURS PER WEEK OPERATED

HOW ARE CARDS STRIPPED

@ PER HOUR.

NUMBER OF OPERATIVES REQUIRED

INTERVAL BETWEEN STRIPPINGS

NUMBER OF CARDS OUT FOR GRINDING

WASTE EXTRACTED AT CARD, total %

(a) Lickerin

(b) Screens

(c) Flat Strips

(d) Cylinder & Doffer Strips

KIND, GRADE, AND STAPLE OF COTTON

PRICE OF COTTON at mill $ per lb.

WASTE PERCENTAGE, including bagging & ties, opening and picker room waste. (Basis bale weight of cotton opened.)

SELLING PRICE Flat Strips per lb.

Cylinder & Doffer Strips per lb.

Sales Engineer

2

ESTIMATED

Savings Forecast

based upon installation of

SACO-LOWELL CONTINUOUS CARD STRIPPERS

NAME OF MILL

DATE

BASIC DATA

Total cards in mill

Total cards grinding

Total cards in production

Production per unit per hour lbs.

Actual machine efficiency %

Total working hours per week

Production per unit per week (100%) lbs.

lbs. @ percent efficiency.

PRODUCTION

Total mill production per week (sliver) %

‡Total visible waste without strippers %

*Total visible waste with strippers lbs.

Total cotton used at cards (without strippers) lbs.

Total cotton used at cards (with strippers)

Total cotton used at cards based upon stock delivered to cards lbs.

SAVINGS

Total actual cotton savings per week based upon stock delivered to cards $

Price of cotton, f.o.b. mill $

Value of cotton in lap form at card, per 50-wk. yr. per hr. $

Total savings per wk. (cotton) $ operatives @ per hour

Total yearly savings (labor) hrs. @

Savings on vacuum pump (power)

Total yearly savings $

$

SUMMARY

Total yearly savings as shown above lbs. @ per lb. $

Less loss of income from diminished waste sales

Total net savings per year $

$ %

INVESTMENT

Total investment strippers @ $

Total annual return on investment

Sales Engineer

‡ Make a test to determine this quantity.

* Generally from 1% to 2% less than ‡.

Facts!

There are facts to prove that by equipping your cards with the Saco-Lowell Continuous Card Stripper you will . . . . .

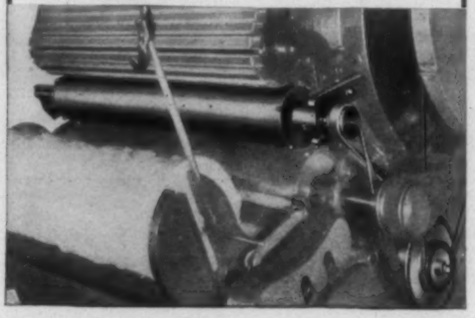
INCREASE PRODUCTION as much as 2½%.

ELIMINATE the loss of stock now going into cylinder strips.

RECOVER an additional 1% to 2% of the fibre processed.

and

on a two-shift basis these very **TANGIBLE SAVINGS** in operating cost, improved production and cotton saved will create **AN ANNUAL RETURN** on the investment in card strippers **AS MUCH AS 75% TO 100%.**



These forms filled out will show you how you can increase your profits and better your card room conditions.

1 . . . *fill out Form 1 to obtain the basic data.*

2 . . . *make the necessary calculations and fill out Form 2.*

If you will follow this simple procedure, you will be surprised at the savings in **Time, Cotton** and **Labor** which will be made possible by using a complete installation of the Saco-Lowell *Continuous* Card Stripper. Should you prefer to have our engineers work out the calculations required in Form 2, send us the data shown on Form 1. From the information you send us, we will complete the estimate and show you exactly what improvements and economies can be made by installing the Saco-Lowell *Continuous* Card Stripper on all your cards.

SACO-LOWELL SHOPS ***Boston, Massachusetts***

CHARLOTTE GREENVILLE ATLANTA

THIS BOOKLET CAN HELP YOU *Save Thousands of Dollars*

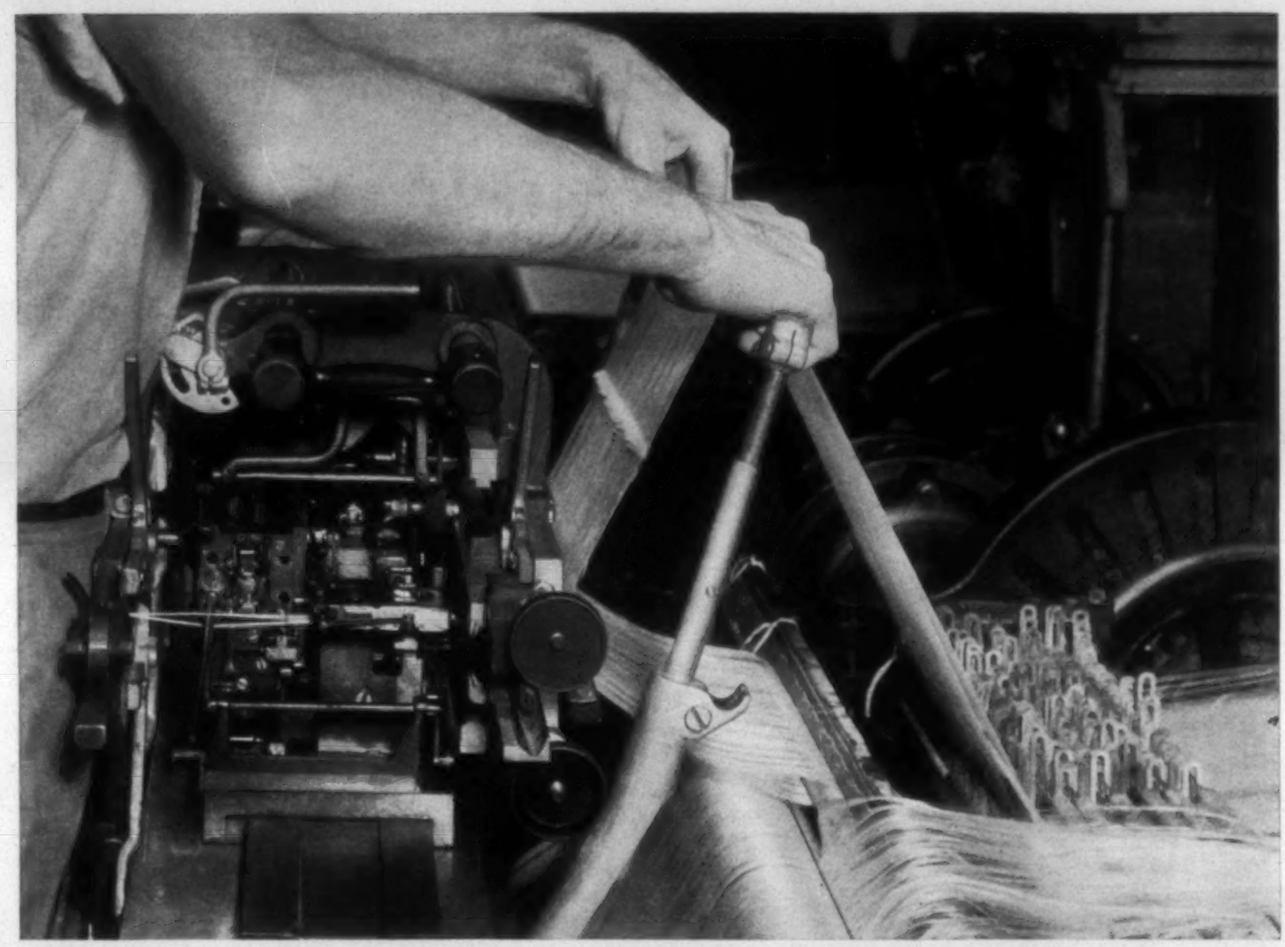
SEND FOR YOUR COPY TODAY

"*Save thousands*" is no catch phrase—The rust preventives detailed in this lavishly illustrated, comprehensive, 40-page booklet have helped salvage literally thousands of dollars from the billion-dollar loss each year to *Demon Rust*.

Every man who has anything to do with metals will find this booklet most instructive. Write for free copy to: Shell Oil Co., Inc., 50 West 50th Street, New York 20, N. Y. or 100 Bush Street, San Francisco 6, Calif.

SHELL

SHELL RUST PREVENTIVES ... OILS ... FLUIDS ... COMPOUNDS



Rayon Warp-Tying, by Portable Machine

RAYON warp can be replenished *at the loom* by using a Barber-Colman Model "LS" Portable Warp Tying Machine. This machine is compactly designed so it will work directly back of the loom in alleys as narrow as 12". It is light and sturdily built and can be easily and quickly moved from one location to another. It is hand-operated and ties-in the warp in sections, each section or load being approximately 15" wide. The knotting mechanism, which includes a "stumbler" to eliminate missing any ends, is normally operated at about 300 knots a minute. Since the machine will handle as fine as 40 denier yarn, all parts are precision made to extremely close standards and fully interchangeable. A good operator can be trained in a short time, requiring principally the ability to be careful and pay attention to significant detail. The picture shows one load being completed, the operator making an inspection of the uniform row of knots before clearing the machine for the next load. Bulletin F-1256-4, which will be sent promptly on request, will describe this machine to you in greater detail.

For Example . . .

From our field records, we cite this experience of a rayon goods manufacturer working 100% on war material:

Yarn Counts	75 to 150 denier rayon
No. of Ends	2500 to 10,000
Knots Tied per Hour	4000 to 8500
Sley	56 to 280

Comparison of loom hours lost per week due to stoppage for replenishment of warp:

Before installing warp tying machine	325
After installing warp tying machine	50
Loom Hours Saved per Week	275

AUTOMATIC SPOOLERS • SUPER-SPEED WARPERS • WARP TYING MACHINES • DRAWING-IN MACHINES

BARBER-COLMAN COMPANY
ROCKFORD • ILLINOIS • U. S. A.
FRAMINGHAM, MASS., U. S. A. GREENVILLE, S. C., U. S. A. MANCHESTER, ENGLAND

Chlorantine **FAST RED 6BLL**

a leader of direct reds

with these five star features

★ DISCHARGE ★ WASHING ★ LIGHT ★ ACETATE RESERVE ★ PROTEIN FIBRE RESERVE

many direct reds can claim two, three, or even four stars: few can claim five

For instance, in CHLORANTINE FAST RED 6BLL there is a rare combination — outstanding light fastness and perfect dischargeability. This, along with its other properties makes it one of the most useful and versatile colors for the quality dyeing of cottons, rayons and mixed fabrics.

DYESTUFFS • CHEMICALS • INTERMEDIATES
CIBA COMPANY INC.
Greenwich & Morton Sts.
NEW YORK
BOSTON · CHICAGO · MONTREAL · CHARLOTTE
PROVIDENCE · SAN FRANCISCO · PHILADELPHIA
VAT DYES OF THE DOW CHEMICAL COMPANY

Announcing

RHOZYME DX

for a
New Standard of Efficiency in
HIGH-TEMPERATURE
Desizing

Thorough penetration of the fabric and complete, rapid solubilization of the size—these are advantages of the unusually high-temperature desizing made practical by RHOZYME DX.

There is *no decrease in enzyme activity* even when RHOZYME DX solutions are held at 160°F for as long as four hours. For jig and kettle processing, temperatures from 170°F to 180°F can be used safely.

RHOZYME DX also retains its stability during long periods of storage even in warm summer weather. Fabrics desized with it have a softer, fuller, more attractive hand than those desized with materials available in the past.

For detailed information on methods of using RHOZYME DX to best advantage, write us today.

9 awards to Rohm & Haas Company
and its associated firms, The Resinous
Products & Chemical Company
and Charles Lennig & Company

RHOZYME *is a trade-mark, Reg. U. S. Pat. Off.*

Represented by Cia. Rohm y Haas, S. R. L., Carlos Pellegrini 331, Buenos Aires, Argentina, and agents in principal South American cities

ROHM & HAAS COMPANY

WASHINGTON SQUARE, PHILADELPHIA 5, PA.

Manufacturers of Chemicals for the Textile, Leather and other Industries . . . Plastics . . . Synthetic Insecticides . . . Fungicides . . . Enzymes

THIS IS NO. 51 OF A SERIES ON

GETTING THE MOST FROM WINDING

Information about winding designed to show improvements in winding equipment and new ideas in the winding operation

AUTOMATIC SIZING MECHANISM (Roto-Coner*)

Automatic sizing of the winding package to produce cones or tubes of uniform diameter — spindle for spindle, package for package — can be accomplished by equipping the Roto-Coner* with the Automatic Sizing Mechanism (Fig. 1.).

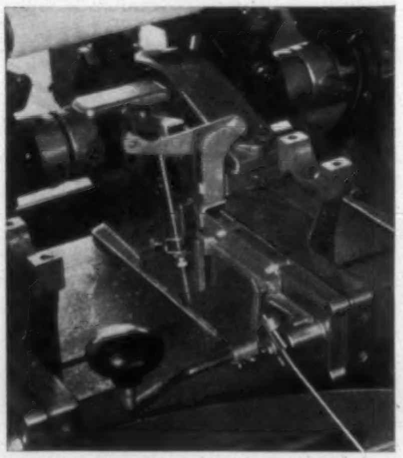


Fig. 1. Automatic Sizing Mechanism

This mechanism relieves the operator of using hand gauges or having to estimate the package diameter by eye. It is especially advantageous when an operator tends many spindles, because her distance from any spindle does not make any difference.

The device is actuated mechanically, and there is no pressure on the package while actual winding is going on.

Setting is easily made so that the spindle will knock off at a predetermined package diameter. A package of the required diameter is used as a gauge; with the machine stopped, the mechanism is adjusted to fit this package.

As the winding package builds up in diameter, the Cone Holder will move away from the Rotary Traverse, causing the Cone Holder Bearing (A in Fig. 2) to be tipped backward. The Slide Arm (B), being connected to the Bearing is raised; this, through a Connecting Rod (C), lifts the Vertical Slide (D) in which there is a notch (D_1). When the Vertical Slide becomes elevated to the predetermined height, the Trip Rod Assembly (E) snaps into the notch, actuating the Breakage Lever (F) so that the Cone Holder will be lifted entirely free of the Rotary Traverse.

To prevent the package from continuing to rotate and scrambling the yarn, the Automatic Sizing Mechanism further provides a means of stopping the package. As the Cone Holder keeps rising, it will continue the elevation of the Vertical Slide (D) which will press the Brake Pad Assembly (G) onto the surface of the package, instantly stopping its rotation.

Brake Pads of different shapes are provided for cones and tubes. The mechanism works equally well with either type.

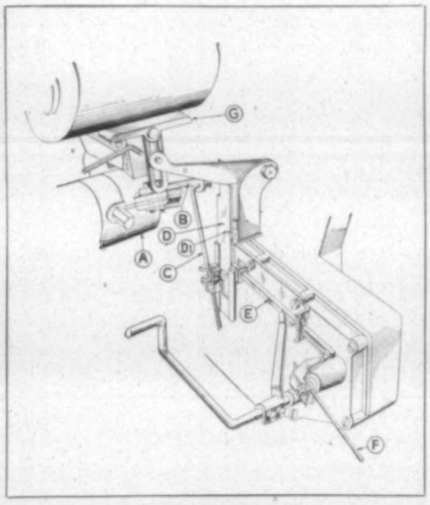


Fig. 2. Assembly Details of Automatic Sizing Mechanism

HIGH LIFT PAWL (No. 60 Doubling Machine)

The Universal No. 60 Doubler has an effective braking mechanism which applies the brake directly against the spindle when an end runs out or breaks. Thus, there is no possibility of chafing the yarn.

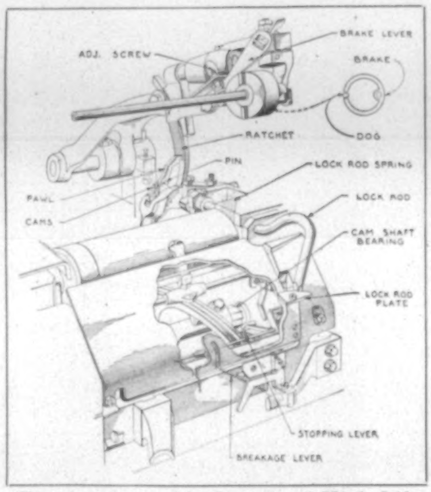


Fig. 3. Assembly Details of High Lift Pawl

Many of these machines have been in constant operation giving efficient service over a period of a great many years. All new or recently manufactured Doublers are provided with a new High Lift Pawl which allows extra clearance when the cone is lifted from the Traverse. It sets the brake positively. If present pawls are worn, the new pawl is available for replacement and may be applied to any existing machine.

The High Lift Pawl (Fig. 3) is simple in action. When an end breaks or runs out, the Breakage Lever drops, thereby lifting the Stopping Lever into contact with the Cam Shaft Bearing. The resulting slight impact unlocks the Lock Rod from the Lock Plate, thus allowing the Lock Rod Spring to contract. This draws the Pawl against the Ratchet and lifts the package.

There are two small Cams (one on each side of the Pawl) which act as slides for a fixed pin driven through the Pawl. When the Lock Rod Spring contracts, it not only draws the Pawl against the Ratchet but also, with the aid of the Cams, forces it to be elevated to its highest point, giving the Spindle a high lift.

The Brake Lever is tilted as it is pressed upward by the Pawl; the Adjusting Screw is pressed down against the Brake Dog, the Brake is quickly and effectively set, and the Spindle is stopped.

*Reg. U. S. Pat. Off.

See our Catalog in TEXTILE WORLD YEARBOOK
23.4.5

"THERE'S A UNIVERSAL WINDER FOR EVERY TEXTILE NEED"

UNIVERSAL WINDING COMPANY

PROVIDENCE BOSTON PHILADELPHIA UTICA CHARLOTTE ATLANTA

THE APRONS THAT THE YARN SAYS ARE BEST

Experience over a period of many years has proved that the apron material with the finest drafting qualities is Lawrence Calfskin. In mill after mill, the Lawrence brand has survived experiments made with other materials — and today is selected more often than any other.

There is no substitute for the "grain" side of leather. The close-fibered structure of the skin gives it strength not found in other materials, and enables it to resist wear due to the constant flexing and to the tension, or pressure, applied by the operation of the machinery.

Furthermore, mills like the convenience of having aprons open-end so that they can be installed quickly, even in bottom positions, without having to tear down the frames or mix up apron types.

So, for convenience, use leather aprons . . . for performance and long life, specify Lawrence Calfskin.

LAWRENCE CALFSKINS

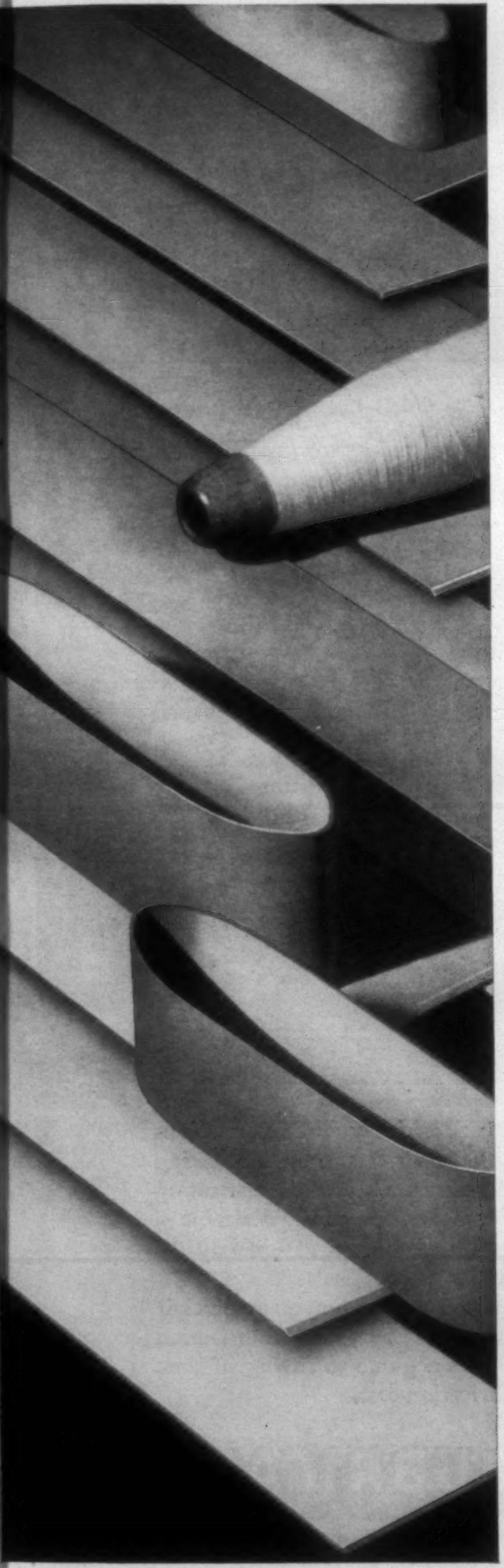
1st Choice for Aprons

A. C. LAWRENCE LEATHER COMPANY

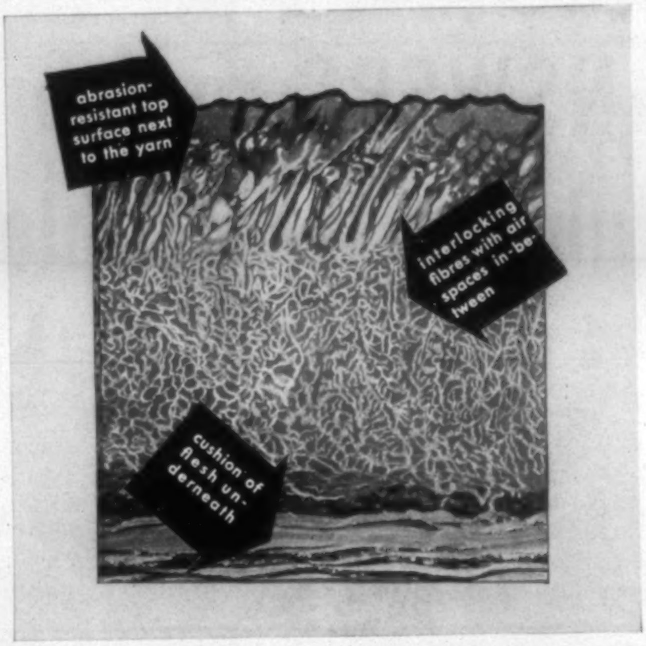
PEABODY, MASSACHUSETTS

Selling Agents:

H. H. Hersey, Greenville, S. C. • Matthews Equipment Co., Providence, R. I.



GIVE and TAKE lengthens roll life


abrasion-resistant top surface next to the yarn
interlocking fibres with air spaces in-between
cushion of flesh underneath

The *triple-resiliency* of Spinna Calf — a feature no other type of material has — helps lengthen service life.

Springy fibres, interlocking in all directions, *give* with pressure, then move immediately back into position. Thus the yarn is *cushioned* without permanently affecting the condition of the cot. Even an ordinary hard end will cause no damage, for the groove will close up promptly.

Mills like the fact that the surface of Spinna Calf has a coefficient of friction that is just right. It holds the yarn securely through the rolls and then carries waste well back on the clearer, avoiding eyebrows.

And a special *hygroscopic* ingredient introduced into Spinna helps to absorb moisture — which, by thus increasing the material's *conductivity*, helps to remove static from the yarn.

For such reasons — Spinna is the calfskin most generally used. Use it yourself . . . and watch the results — in spinning efficiency, in longer roll life.

A. C. LAWRENCE LEATHER CO.
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ROLL COVERINGS

it's Triple Resilient

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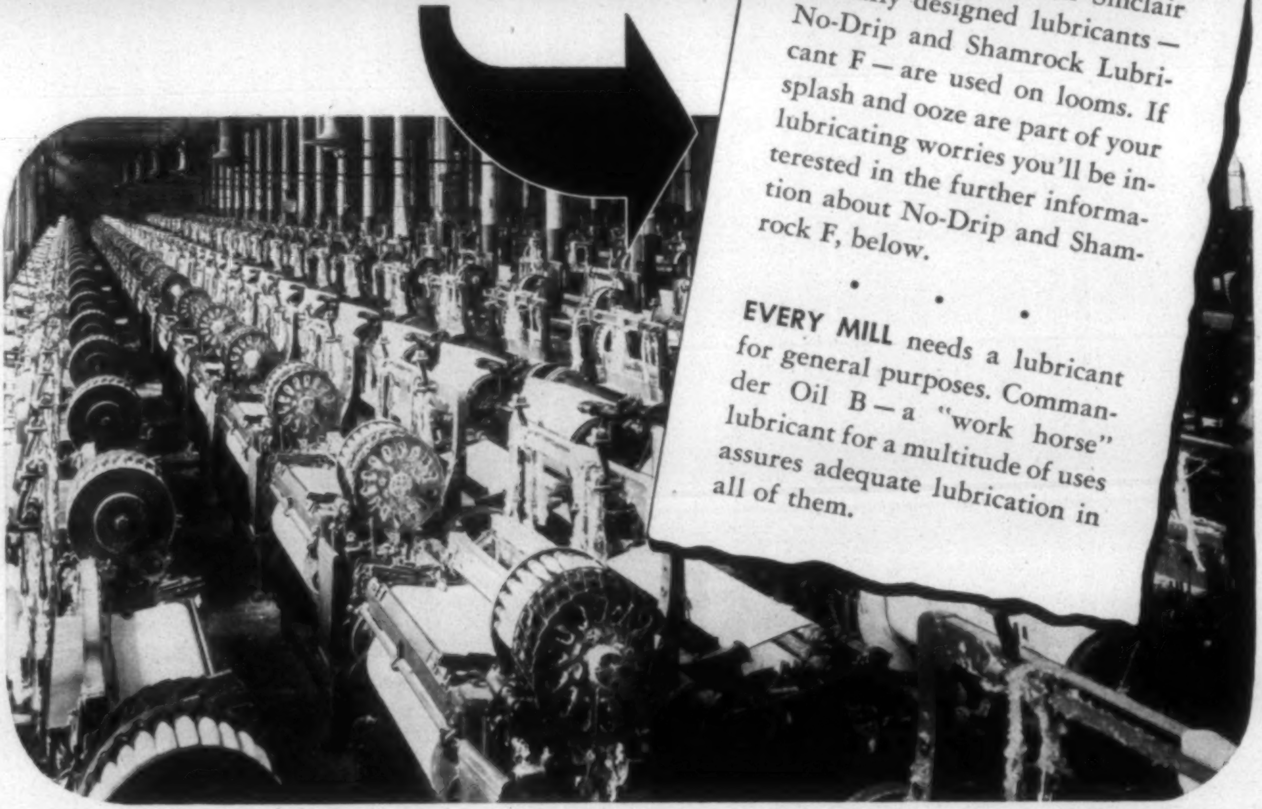

For Example:

LEAKAGE and THROW cease to be problems when Sinclair specially designed lubricants — No-Drip and Shamrock Lubricant F — are used on looms. If splash and ooze are part of your lubricating worries you'll be interested in the further information about No-Drip and Shamrock F, below.

• • •

EVERY MILL needs a lubricant for general purposes. Commander Oil B — a "work horse" lubricant for a multitude of uses assures adequate lubrication in all of them.

TO PROVIDE a highly efficient oil with non-leaking and splash resistant qualities for plain bearings, dobby and jacquard heads, Sinclair research developed No-Drip Lubricants. They are designed to avoid staining of warp, filling, or cloth. . . . Tendency to throw is characteristic of most greases. Sinclair Shamrock F eliminates throw in lubrication of gears, cams, and chains. Shamrock F is highly adhesive, cushions shock, and insures a good lubricating film. Shamrock F's lasting lubricating qualities make it especially desirable — fewer applications needed — in difficult-to-lubricate parts.

Have you a complimentary Sinclair Textile Flow Chart and Lubrication Guide? It's a guide to saving of time and lubrication cost.

SINCLAIR TEXTILE LUBRICANTS

FOR FULL INFORMATION OR LUBRICATION COUNSEL WRITE SINCLAIR REFINING COMPANY, 630 FIFTH AVENUE, NEW YORK 20, N. Y.

ABP **textile bulletin** ABC

Vol. 68 June 15, 1945 No. 8

Possibilities of Increasing Card Production Shown Through Studies At N. C. State School of Textiles

By E. B. GROVER, left Head of Yarn Manufacturing Department & G. H. DUNLAP, right Research Supervisor

IN this period of shortages—and textiles are critically short—any opportunity to increase productivity of machinery should be of great interest to manufacturers. The results of studies performed at the North Carolina State College school of textiles, Raleigh, indicate that a greater productivity is possible in carding which features many advantages but few penalties of stepped-up output. Not only in this war period when capacity is overtaxed, but for peacetime operations as well—in cotton as well as synthetic fibers—should these findings be applied by mill executives for trial under the particular conditions of their own plants.

This is a report on a project conducted at the N. C. State school of textiles under the direction of Dean Malcolm E. Campbell and Giles E. Hopkins, director of applied research for the Textile Research Institute, and sponsored by the War Production Board's Office of Production Research and Development. The complete 65-page report may be found in the April, 1945, issue of *Textile Research Journal* (Vol. XV, No. 4).

Four cottons representing extreme conditions were used for the original series of tests, as shown below:

Cotton Description	Grade	Staple length	Fiber strength Pounds/ square inches Chandler strength
A	SLM	1 inch	94,000
B	SLM	1 inch	65,000
C	SLM	1⅛ inch	84,000
D	SLM	1⅛ inch	66,500

These cottons were all processed carefully into 25½-pound laps on the same opening and cleaning equipment, which consisted of the following units: bale breaker, vertical opener, C.O.B. cleaning unit, condenser, single section (three-blade beater) breaker picker with hopper feeder, and single section (Kirschner beater) finisher picker with four-lap apron. Particular attention was given to the blending of each type of cotton to insure uniform mixes. The laps of the one-inch cotton were made 15 ounces per yard, except for a group of laps of 9, 11, 13 and 17 ounces per yard, respectively, which were needed for one series of tests on the (A) cotton; all the 1⅛-inch cotton was run into 12-ounce lap.

Card productions are calculated at 100 per cent. The card sliver was run through two processes of drawing, one long draft roving and spun on a long draft spinning frame.

	One-inch Cottons	1⅛-inch Cottons
Finisher drawing sliver, grains/yard	50	50
Roving, hank	2.20	4.00
Spinning:		
Doublings	2	2
Yarn size	20	40
Twist multiplier	4.25	4.00

Eight series of tests were run, as follows:

(1) Varying the speed of the entire card (cylinder,

HIGH SPOTS OF FINDINGS

Card productions were increased by various methods up to 50 per cent, with the following results—

Yarn strengths were not impaired by any of the changes performed.

Over-all waste percentage can be controlled by regulating speed of cleaning members.

Peak power demand charges probably would not be increased.

Power per pound increased for higher over-all speeds, and decreased for other methods.

Reduction of yarn appearance not more than two-thirds of a full grade.

Increase in neps with higher production; greatest single factor affecting neps is the cotton.

Fiber length unaffected.

Fiber strengths not lowered.

High fiber strength cotton gives high yarn strength.

doffer, flats and lickerin) in proportion to three cylinder speeds of 165, 195 and 225 r.p.m. for each of the four cottons.

(2) Varying the speed of the cylinder only, using three cylinder speeds of 165, 195 and 225 r.p.m. for each of the four cottons.

(3) Varying the speed of the lickerin only, using speeds of 325, 425, 525, 625 and 725 r.p.m. for each of the four cottons.

(4) Varying the speed of the doffer to increase the production, using speeds of 6, 8, ... 16 r.p.m. for cylinder speeds of both 165 and 195 r.p.m. for the one-inch strong (A) cotton. When cylinder speed is increased to 195 r.p.m. the over-all card speed is changed, so that the lickerin speed is increased from 425 to 502 r.p.m. and the flat speed from 2.9 to 3.4 inches per minute.

(5) Varying the speed of the flats only, using 2.9, 4.9 and 6.9 inches per minute for each of the 1⅛-inch cottons (C and D).

(6) Varying the setting of the top edge of the front knife plate, using settings of .022, .029 and .036 inches for each of the 1⅛-inch cottons.

(7) Varying the weight of the lap from nine to 17 ounces per yard with increments of two ounces per yard and using the S.L.M. one-inch strong (A) cotton for both 165 and 195 r.p.m. speeds. When cylinder speed is increased to 195 r.p.m., the overall card speed is changed.

(8) Varying the production by changing the sliver weight, using 15-ounce laps for both the one-inch cottons.

Yarn Strength

From a careful analysis of the results of this study, it can be stated that no significant trend indicating a loss of strength due to increased productions and speeds or to changes in card adjustments has been found. This means that where maintenance of yarn strength is the outstanding qualification of the yarn, great leeway for increased production exists. (See Tables I-A, I-B, I-C and I-D.

Because of its relation to the cost of production and the quality of the product, the amount of card waste removed in the various tests must be considered. Inasmuch as each

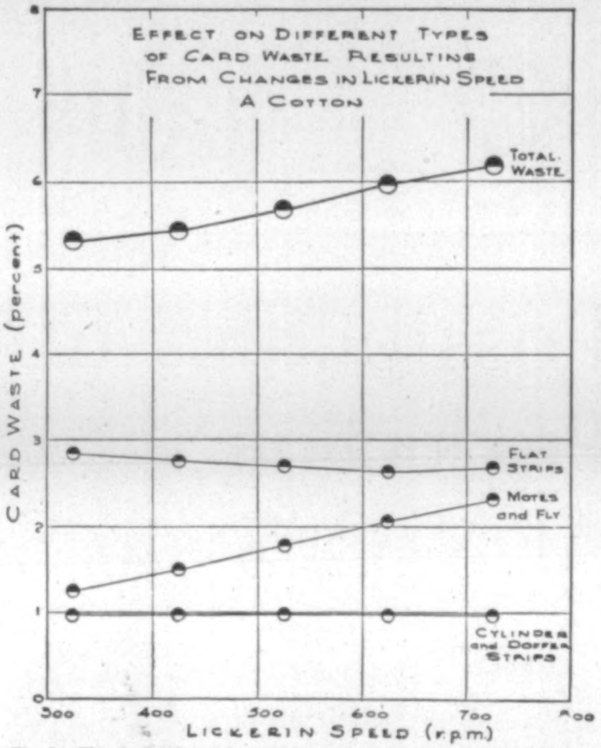

Fig. 1—This figure shows the correlation between the increase in lickerin waste and the total waste as the lickerin speed is increased. Very similar results are found with the B, C, and D cottons. (Total waste includes sweepings.)

TABLE I-A. Effects of Card Production Increase: Speeds of Entire Card Uniformly Increased

One-inch high (A) and low (B) fiber strength cotton—20/1 yarn—4.25 twist multiplier
1⅛-inch high (C) and low (D) fiber strength cotton—40/1 yarn—4.00 twist multiplier

	Production rate			Yarn strengths															
			Per cent of normal condition	Skein (pounds)				Single strand (ounces)				Yarn appearance (grade)				Card waste (per cent)			
	Pounds per hour			Cotton				Cotton				Cotton				Cotton			
Lot No.	A—B	C—D		A	B	C	D	A	B	C	D	A	B	C	D	A	B	C	D
1	12.1	10.8	100	117.2	104.8	57.3	46.0	14.92	12.99	7.31	5.62	A—	C	C	C	5.42	6.16	4.66	5.58
2	14.3	12.8	118	113.4	96.3	56.9	45.6	15.05	12.66	7.50	5.80	B+	C+ to C	C	C—	6.16	6.34	5.91	6.19
3	16.5	14.7	136	116.6	103.9	57.3	45.5	15.46	13.44	7.30	6.00	B+	C	C	C— to C	6.71	6.83	6.43	6.37

TABLE I-B. Effects of Card Production Increase: Speeds of Doffer Increased

One-inch high (A) fiber strength cotton—20/1 yarn—4.25 twist multiplier

	Production rate			Yarns strengths		Yarn appearance	Card waste
Lot No.	Pounds per hour	Per cent of normal condition		Skein (pounds)	Single strand (ounces)	(grade)	(per cent)
12	7.2	60	Cylinder 165 r.p.m.	116.4	15.19	A—	6.50
13	9.6	79		117.1	14.88	B+	5.94
14	12.1	100		117.2	14.92	A—	5.42
15	14.5	120		115.5	14.21	B+	5.33
16	16.9	140		114.8	14.78	B+ to B	5.21
17	19.3	160		116.5	14.96	B	5.36
18	7.2	60	Cylinder 195 r.p.m.	115.8	14.94	A—	7.17
19	9.6	79		116.6	14.78	B+	6.68
20	12.1	100		116.2	15.00	B+	6.22
21	14.5	120		113.4	15.05	B+	6.16
22	16.9	140		114.5	14.99	B+	5.79
23	19.3	160		113.6	14.15	B+	5.88

"what! you mean I can't buy all the Soda Ash I want?"

YES, MR. INDUSTRIALIST, that's the situation on Soda Ash . . . as long as present heavy war demand continues.

Too often this basic "work-horse" of industry is taken for granted. Yet Soda Ash is absolutely indispensable in a wide variety of industrial processes.

What has happened to all the Soda Ash? It has gone into vastly expanded production of glass containers to save scarce metals. Into the manufacture of aluminum and other metals vital to war production. Into the making of explosives. Into the manufacture of chemicals, pulp and paper, textiles, soap and soap powders, water softeners, cleansers and literally hundreds of miscellaneous materials.

Despite war's complications, alkali manufacturers have set an enviable record in supplying the steadily expanding Soda Ash requirements of industry. And Mathieson, playing no favorites, has followed a policy in its commitments of "cutting the cloth to fit the pattern", is continuing to take care of its contract customers, large and small, with little or no occasion for late deliveries or other disappointments . . . regrets only that its production facilities have not been great enough at all times to serve all potential Mathieson customers.

Yes, Mr. Industrialist, if they ever start pinning medals on industrial products for valiant war service, Soda Ash will sport a chest full! Think of that if you haven't been able to buy all the Soda Ash you want!

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CHEMICALS

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Soda Ash . . . Caustic Soda . . . Liquid Chlorine . . . Bicarbonate of Soda . . . Chlorine Dioxide . . . Ammonia, Anhydrous & Aqua . . . HTH Products . . . Fused Alkali Products . . . Synthetic Salt Cake . . . Dry Ice . . . Carbonic Gas . . . Sodium Chlorite Products . . . Sodium Methylate phase of the study reveals a definite pattern, a brief analysis of each seems to be the best approach—

(a) Increasing the card production by running all parts of the card at a higher speed results in increased total waste removed. (See Table I-A.)

(b) Increasing the card production by either increasing doffer speed, using a heavier lap, or producing a heavier sliver, results in a lowering of card waste percentage. (See Tables I-B, I-C and I-D.)

(c) Increasing cylinder speed only results in a general increase, varying from zero to 1 1/3 per cent, this accompanied by a smaller increase in flat strips.

(d) As the speed of the lickerin is increased from 325 to 725 r.p.m. by increments of 100 r.p.m. the amount of total waste increased by about one per cent on all cottons. Virtually all the increase was in the form of motes and fly waste. (See Fig. 1.)

(e) As the flat speed alone was increased from 2.9 to 6.9 inches per minute there was a proportionate increase in flat strips, which was reflected in the total waste percentage. Increasing flat speeds does not change the weight of the individual flat strips. (See Fig. 2.)

Increasing production by higher overall card speeds, producing heavier slivers or feeding heavier laps will cause greater loading of the flats, which is measured by the weight of individual flat strips.

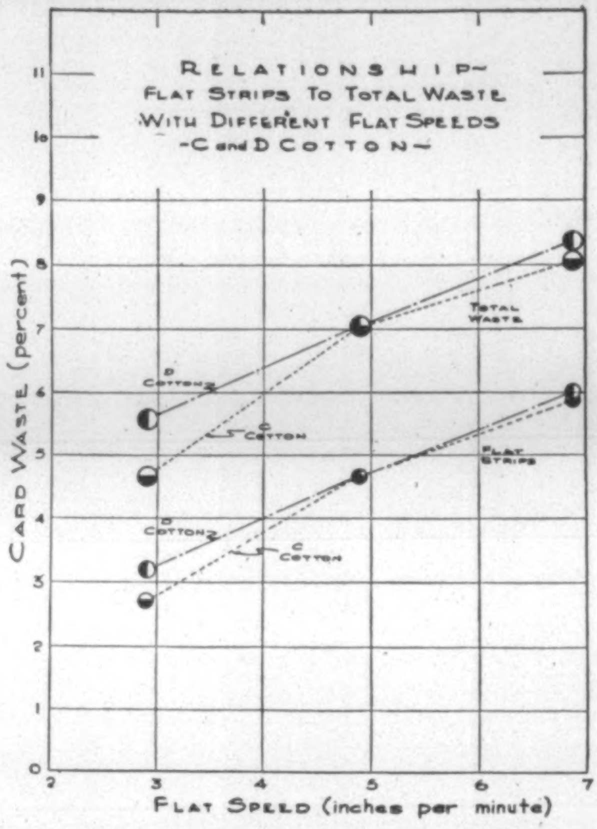


Fig. 2—This chart shows two important relationships: (1) the increase in flat waste as the flat speed is raised, and (2) the correlation between the flat waste and total waste.

Neps

In general, any increase in production results in an increase in neps. However, no increase in neps was extensive enough to alter yarn appearance grades by more than two-thirds of a grade. Considering as normal a production of 10.8 pounds per hour for the (C) and (D) cottons, and 12.1 pounds per hour for the (A) cotton, in this study there is then an increase in nep count practically in proportion to the increase in production. For productions below these standards, there is but a slight improvement in neps. The single factor causing the greatest variation in the nep count is the cotton. (See Figs. 3 and 4 and Tables I-A, I-B and I-C.)

Altering the setting of the front knife plate resulted in an increase in neps when either a wider (.036) or closer (.022) setting was used. Optimum results were obtained with settings between .026 and .029 inches. Varying the

TABLE I-C. EFFECTS OF CARD PRODUCTION INCREASE: WEIGHT OF LAP INCREASED

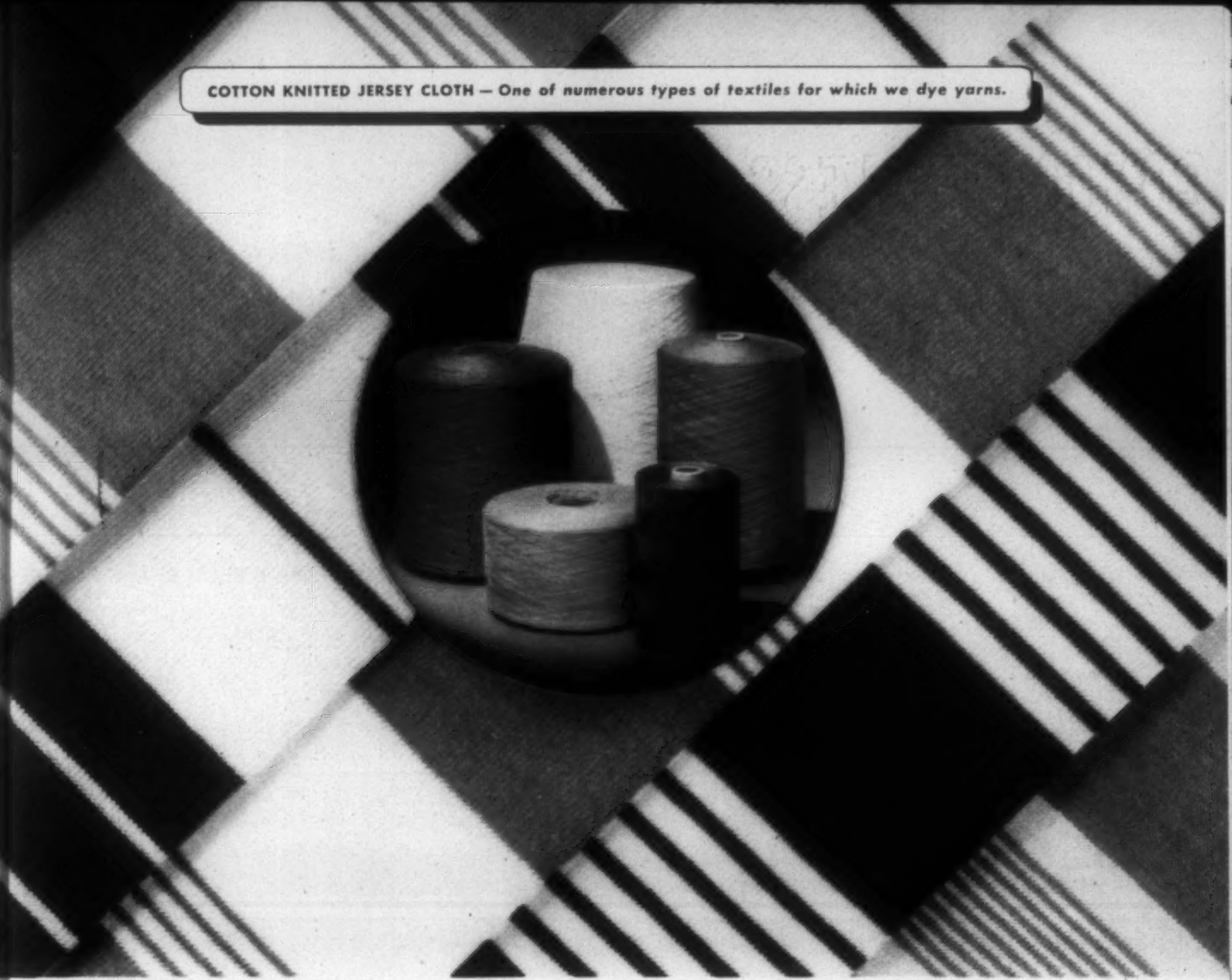
One-inch high (A) fiber strength cotton—20/1 yarn—4.25 twist multiplier

	Production rate			Yarns strengths		Yarn appearance	Card waste
Lot No.	Pounds per hour	Per cent of normal condition		Skein (pounds)	Single strand (ounces)	(grade)	(per cent)
24	7.2	60	Cylinder 165 r.p.m.	114.9	14.70	A—	6.40
25	8.8	73		115.2	14.98	A—	5.94
26	10.4	87		116.6	14.87	A—	5.67
27	12.1	100		117.2	14.92	A—	5.42
28	13.6	113		113.6	14.75	B+	5.55
29	8.5	60	Cylinder 195 r.p.m.	114.6	15.12	B+	7.29
30	10.4	73		111.9	14.87	A— to B+	7.08
31	12.3	87		114.7	15.44	B+	6.25
32	14.2	100		113.4	15.05	B+	6.16
33	16.1	113		114.7	14.65	B+	6.19

TABLE I-D. EFFECTS OF CARD PRODUCTION INCREASE: WEIGHT OF SLIVER INCREASED

One-inch high (A) fiber strength cotton—20/1 yarn—4.25 twist multiplier

	Production rate			Yarns strengths		Yarn appearance	Card waste
Lot No.	Pounds per hour	Per cent of normal condition		Skein (pounds)	Single strand (ounces)	(grade)	(per cent)
34	9.6	80	Cylinder 165 r.p.m.	114.8	14.71	A—	5.88
35	12.1	100		117.2	14.92	A—	5.42
36	14.5	120		114.4	14.85	A— to B+	5.70
37	16.9	140		114.4	15.00	B+	5.51



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IN YARN DYEING, AS IN AUTOMOBILES, BUY *Uniformity!*

Buy a standard make of automobile; no matter where you get it, the quality is the same; the 100th model off the production line is just as good as the first.

It pays to buy Franklin Process Yarn Dyeing for similar reasons. If you use standard shades, it makes no difference whether you buy in Providence, Philadelphia, Greenville or Chattanooga; the colors will finish the same (if properly handled) and will have the same fastness. That's because all Franklin Process plants use identical formulas for standard shades and dye by the same method – the famous Franklin Process.

Neither time, geography, nor a change from one plant to another are obstacles to color uniformity, when you use Franklin Process. Also unequalled yarn dyeing capacity is at your disposal, as well as great versatility of equipment, – from 1 lb. to 2500 lbs. in a single batch.

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LARGEST PACKAGE DYERS IN THE WORLD

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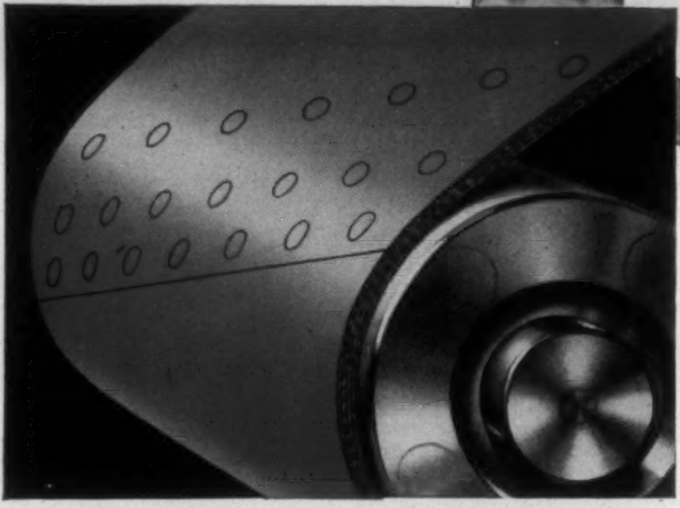
Extensible-Tip in CONDOR ENDLESS BELTS

an important MANHATTAN development that steps up belt life and performance

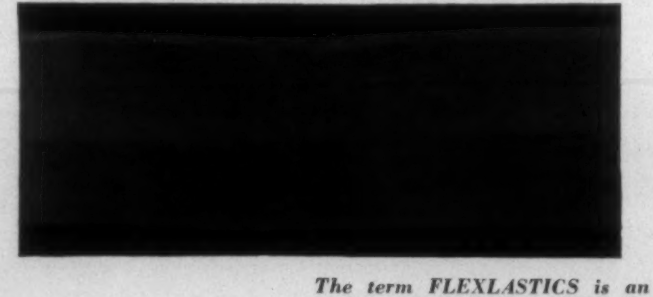
ADVANTAGES

1. Increases flexibility at splice.
2. Can be operated over smaller pulleys.
3. Can be operated at higher speeds and heavier loads.
4. Prolongs splice life 3 to 10 times.
5. Reduces belt and maintenance costs.



All warp threads in outer plies are cut by suitably spaced perforations filled with "live" FLEXLASTICS, which are then vulcanized to become "elastic rivets." These stretch and relax progressively (see illustration) as they pass over the arc of contact, providing stress relief for every warp thread, permitting use of smaller pulleys on short-center drives and higher speeds.

Above: Ordinary type of splice which failed when ply end gave way. **Below:** A splice with EXTENSIBLE-TIP, still unbroken after running 10 times as long under identical conditions. This increased life is due to ***extended-area stress relief.***



A belt made endless in the conventional manner has all flexing strain ***concentrated in a line*** at the ends of top and bottom plies. This concentration of strain soon ruptures the bond between the ends of the outer plies and the rest of the belt and unnecessarily shortens service life.

MANHATTAN'S EXTENSIBLE-TIP—an exclusive, patented Strength Member development—provides multiple stress relief, uniformly ***distributed over an area*** of the belt where the duck ends. In addition, the end is welded to the adjacent ply by "elastic rivets" made from special FLEXLASTICS.

It is this extended area of stress relief that makes the Extensible-Tip last as long as the belt, lets you run the belt at higher speeds, over smaller pulleys, on short-center drives, and increases its service life from three to ten times over ordinary methods of making the same belt endless.

You protect the continuity of your production when you use MANHATTAN Endless Belts, all of which are made with the ***extended-area stress relief*** provided by the MANHATTAN EXTENSIBLE-TIP.

The term FLEXLASTICS is an exclusive MANHATTAN trade mark. Only MANHATTAN can make FLEXLASTICS. Condor Belts are now made in the dark, war-time color.

RM

ARMY E NAVY

THE MANHATTAN RUBBER MFG. DIVISION

OF RAYBESTOS-MANHATTAN, INC.

EXECUTIVE OFFICES AND FACTORIES PASSAIC, NEW JERSEY lickerin speeds resulted in no consistent change in the nep count; this was found on all cottons and with speeds up to 725 r.p.m. Varying only the cylinder speed resulted in an increase in neps for the initial increase in speed, then a reduction for three out of the four cottons in going from 195 to 225 r.p.m. For the two 1⅛-inch cottons, increases in the flat speeds from 2.9 to 6.9 inches per minute resulted in a marked increase in neps.

The power aspects of this study have been considered from two angles: (a) the power to operate a card under conditions of increased productions and (b) the power to accelerate a card under extreme conditions of ultimate speed.

When the production of a card is increased by the use of higher overall card speeds, there is an accompanying increase in the rate of power usage. (See Fig. 5.) The power to operate a card increases nearly proportionate to the square of the cylinder speeds. The power required to card a pound of cotton increases at a lower rate than the above due to an increase in production; this increase in power is almost in direct proportion to the cylinder speeds used.

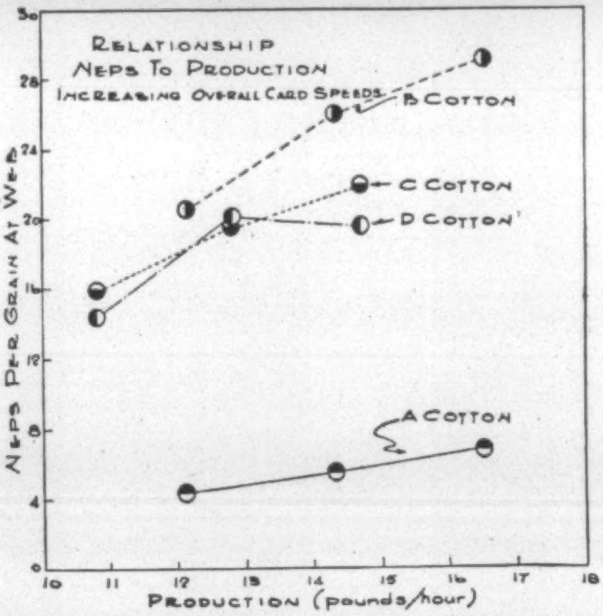


Fig. 3—The similarity of the trend for an increase in neps per grain at the card web with increased production is evident (all cottons).

When the production of the card was increased by increasing the doffer speeds, the following power changes occurred: (1) the power to operate the card increased at a rate approximately half as fast as the increase in production; (2) the power required to card a pound of cotton decreased substantially; as the production was increased by two and one-half times, the power per pound was nearly cut in half. Rather similar results were found when heavier laps or slivers were used to increase production.

Another factor of interest is the effect on fiber strength of various changes made during this series of tests. To measure any possible effect, the fiber strength of the cotton in the lap may be compared with the fiber strength in the card sliver. Examination of the results obtained from this measurement reveals no significant change.

The changes for the mean fiber length in going from lap to sliver reveals that: (1) the change in mean length is small, varying from —0.02 to +0.06 of an inch; (2) there is no trend to indicate that these changes are correlated to increased speed or productions; (3) the co-efficient of variation for the sliver is less than that for the lap, indicating that the card has removed some of the shorter fibers.

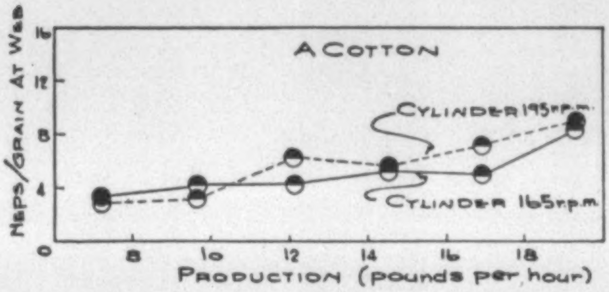


Fig. 4—Relationship of neps to production for increasing only doffer speeds (A cotton). Two cylinder speeds.

Yarn strengths in all cases have been affected to a greater extent by factors other than the changes used in card speeds, productions or settings. It is not difficult to interpret that within limits the fiber strength outweighs the fiber length in the final influence on yarn strength, and that in many cases a shorter and possibly a cheaper cotton of higher fiber strength would perform better in the spinning and give equal yarn strength.

When the overall card speed was increased in proportion to an increase in cylinder speed of from 165 to 225 r.p.m., production was increased 36 per cent. Yarn strength was not affected (the variation was less than three per cent, with no treads noted), waste was increased, and yarn appearance dropped not more than one-third of a grade. Power requirements—horsepower as well as the horsepower per pound carded per hour—increased as the higher speeds were used. This was demonstrated with 1⅛-inch cottons, where productions were increased from 10.8 to 14.7 pounds per hour, and also with one-inch cottons, where productions increased from 12.1 to 16.5 — *(Continued on Page 58)*

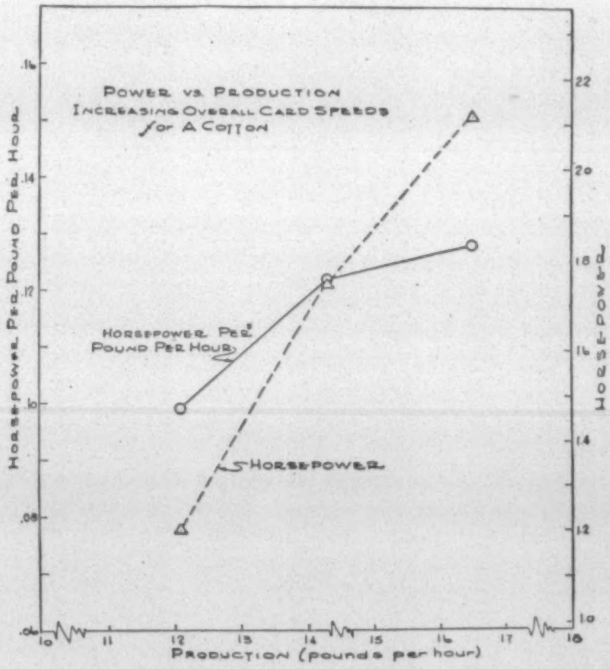


Fig. 5—The horsepower increases approximately with the square of the cylinder speeds (and therefore to the square of the production). The horsepower per pound of cotton carded per hour increases approximately in proportion to the cylinder speeds or production.

EVAPORATIVE-COOLING PRIMER FOR TEXTILES

By M. H. IRONS
American Moistening Company
Providence, Rhode Island

MAINTENANCE of adequate relative-humidity standards for protecting textile fibers from the terrific punishment given them in all the departments from the pickers through the spinning and weaving departments has long been commonplace.

Along with the protective function of humidity came a reduction in operating-room temperature which, though very vivid when the humidifying system was first installed, tends to be forgotten until a breakdown of a long-installed system occurs on a hot summer day and inside temperatures go sky-high.

Demands for high production have resulted in higher machinery speeds with consequently greater installed horsepower and generated internal frictional heat. The resulting unbearable room temperatures have brought textile management to place more stress on the aforementioned evaporative-cooling effect of humidifying systems.

Management's problems in the selection of evaporative-cooling systems are: (1) what is it all about?; (2) how much should be bought?; and (3) can present equipment be used?

What Is It All About?

A spinning room may be likened to a big box and the windows to holes in the box. If heating coils, a motor, or the frictional heat of operating machinery, lights, etc., come into play within the box, the interior temperature will surely rise in proportion to the concentration of this heat generation within.

If the room is airtight the temperature will rise to a point where heat input equals heat transfer through the walls, floor, and ceiling, causing temperatures which in some textile processes might go as high as 150° F.

If, instead, the open holes are exposed to wind, or if the air is introduced by fans or other means, the air flow through the box will produce a slight lowering of room temperature which is reflected in the rise in temperature of the air going through the box as it is exhausted. The greater the air flow, the lower the interior temperature.

Spray water "directly" into that air and we have another means of reducing air temperature. The evaporated water or water vapor disappears as a fluid and reappears as "humidity" in the room air, readily measurable by humidity indicators. The change of state from fluid to vapor has absorbed heat just as surely as evaporating water in a steam boiler absorbs heat from the burning fuel.

Fortunately the cooling effect of water evaporating into air is considerable as is shown by the following comparison: one pound of evaporating water will offset the heat produced by a 300-watt light per hour; three pounds of evaporating water will offset the heat produced by a one-horsepower motor per hour; and one pound of evaporating water will remove approximately as much heat as will seven pounds of melting ice.

The amount of cooling by evaporation is determined by the amount of water which can be evaporated. The amount of water which can be evaporated is limited by the amount of moisture which the air can absorb. The fresh air obviously can "pick up" the difference between outside-air moisture content and the specific desired moisture content within the room (obviously a weave room at 85 to 90 per cent has a high "top ceiling" for moisture pickup and hot dry climates would have a low floor for moisture pickup).

Taken in steps we have effected a slight lowering of temperature by ventilation alone and a further reduction by ventilation plus evaporation.

The third step to produce further cooling has to do with the amount of evaporation that can be performed. Obviously two cubic feet of air can absorb twice the water vapor that can be absorbed by one cubic foot, and in a "direct" system the greater the air flow (plus the water to go with it) the greater the reduction. Infinite air flow would cause an inside wet-bulb temperature approaching as a limit the outside wet-bulb temperature. Indirect systems will have a room dew-point temperature approximating the outside wet-bulb temperature.

Types of Systems

Direct Systems—A direct evaporative-cooling system is any system which evaporates moisture directly within an enclosure which is not airtight. Under this heading should be placed all so-called "humidifying" systems which utilize the following:

(1) High-duty humidifiers consisting of a pressure-type water spray within a suspended cylinder through which passes a forced air flow or an induced air flow.

(2) Atomizers which by means of a compressed-air nozzle induce a water flow into an air jet where it is broken up into a fine mist and distributed in the room.

(3) Centrifugal humidifiers, incorporating a high-speed disk to which water is fed, delivering a fine sheet of water to peripherally located teeth, by means of which the water is broken up into a fine mist by centrifugal force. The air delivery from a propeller-type fan receives this mist and distributes it in the room proper.

(4) Systems using short ducts with many outlets delivering a fine mist or fog. The means for producing this fog within the duct are variations of (1) or (3), and the air flow is usually recirculation of room air under forced circulation.

(5) Open pans, air blown over wetted wicking, direct introduction of steam, etc.

These systems are not graced by the term "evaporative-cooling system," where there is no controlled fresh-air flow, although wherever a humidifying system is operating, there is an air change if it is only a natural air change (windows,

HARNESSING THE RAINBOW

Capturing and duplicating the most subtle shades of the rainbow is only the first step in dyestuff application.

The real problem is to harness that color—to make it do a specified job. Breaking colors to harness forms a large part of the work of color specialists of Du Pont's Laboratories. They are constantly striving not only to maintain and improve the quality of production, but also to improve application processes in the dyestuffs industry.

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Du Pont Dyestuffs

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building leakage, etc.) and, consequently, evaporative-cooling is taking place.

To make these systems evaporative-cooling systems in the full sense of the word it becomes but necessary to introduce fresh air by means of an air-handling system, such as a duct distributing system or unit ventilators positioned at the windows, and then to incorporate control of that air-handling system. In the case of (4) suitable fresh-air and recirculation dampers under control need only to be installed.

Control—There are two types of control to be applied to the air-handling system (humidity control of the existing humidification system being assumed):

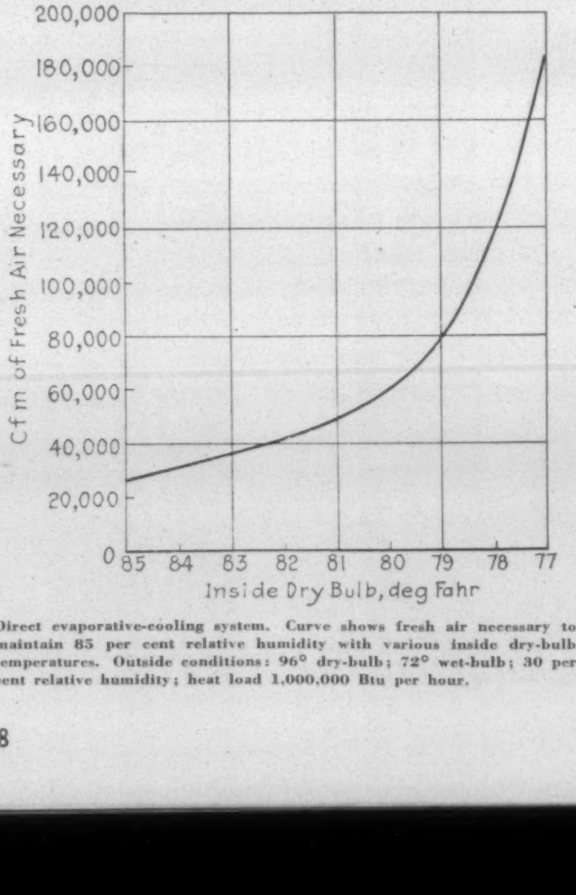
(1) Temperature. The function of temperature control is more in the nature of a low-limit operation to prevent the temperature during the fall, winter, and spring from going below a fixed selected minimum at which point it can be held. During summer months room temperatures are at the mercy of the outside wet-bulb temperature with full fresh-air capacity being used most of the time and no fixed temperature being maintained constantly.

The thermostat, which may be pneumatic or electric, gradual or positive acting, functions to position the fresh-air and recirculating dampers in the proper ratio to maintain its setting.

(2) Humidity. Supplementary humidity control may be considered under two headings:

(*a*) "Underhumidity." The existing humidification system may be adequate for the fresh-air capacity to be installed, in which case temperature control only will suffice. In any event, if the capacity of the humidification system is not adequate to maintain desired inside relative humidity under extremes, a supervisory humidity control can be installed to close off the fresh-air dampers when the evaporation capacity is overtaxed by an extremely hot, dry day which exceeds design specifications.

(*b*) "Overhumidity." In light heat-load low-humidity (50 to 55 per cent) rooms during high-humidity "dog days," periods of overhumidification may result from bringing in full outside air. A second type of "supervisory" humidity control acts, when normal conditions have been exceeded, to reduce the quantity of outside air, allowing the room temperature to rise until this condition corrects itself by restoring the desired lowered relative humidity.



Direct evaporative-cooling system. Curve shows fresh air necessary to maintain 85 per cent relative humidity with various inside dry-bulb temperatures. Outside conditions: 96° dry-bulb; 72° wet-bulb; 30 per cent relative humidity; heat load 1,000,000 Btu per hour.

Indirect Systems—This is the familiar air washer or central system in which fresh air, room air, or a mixture is passed through a series of sprays. The air emerges from the last spray saturated and at approximately the wet-bulb temperature of the entering air when the spray water is recirculated and unheated or cooled. This 100 per cent relative humidity air is then distributed to the room through a system of distributing ducts and outlets. No visible moisture is delivered from these outlets, humidification being performed "indirectly" at the washer.

Heat pickup in the room, or reheating, or both, reduces this humidity to the required maintained standard.

All air will be saturated regardless of how low the outside relative humidity goes, the exit air having a moisture content or "dew point" within one degree of the outside wet-bulb temperature. Control is generally by the dew-point method, whereby a fixed temperature differential between this "dew-point temperature" and the room temperature results in a constant relative humidity maintained thermostatically.

Seasonal Fluctuations

In the summer the room temperature fluctuates with the outside wet-bulb temperature. In the winter, a constant temperature can be maintained by one or all of (*a*) preheating, or (*b*) mixing the entering air, or (*c*) heating the water sprays.

Combination Systems—Duct distributing systems, combining washing or "indirect" evaporation as well as "direct" evaporation within the room, make up a third category of systems.

The direct evaporation may be produced by atomizers, high-duty humidifiers, centrifugal humidifiers in the room proper, or in the form of supersaturation carried along in the air stream through the outlets into the conditioned area.

Reductions in total air handled can be effected with "direct systems" or combination systems over "indirect systems," which may be quite a factor in these days of wakened interest to the profits from air cleaning.

Unit Systems—Units automatically supplying fresh or recirculated air or a mixture, as well as humidifying, heating, or filtering, may combine one or all of these functions under control.

Whereas central systems are tailored to the job, unit systems will always have the appeal of flexibility where a fast-changing industry may put a spinning room where a weave room was last year, or higher speeds increase the heat generated. Unit systems may be moved and re-used or their number increased on the spot with equal facility.

How Much Should Be Bought?

Design—The outside wet-bulb temperature is a measure of the total heat content of air—the theoretical minimum temperature that can be reached by evaporative-cooling.

Let us consider a mill in Georgia, for example, assuming a room with no internal heat, to be cooled "directly" by

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evaporation within the room and fresh air passing through it. The outside-air conditions are 91° dry-bulb temperature; 78.5° wet-bulb temperature; 74° dew-point temperature; 126 grains of moisture per pound, 58 per cent relative humidity.

If we saturate the air to the following relative humidities, the room conditions will be:

Relative humidity, per cent	Dry-bulb temperature, degree	Wet-bulb temperature, degree	Dew-point temperature, degree
100	78.5	78.5	78.5
90	81	78.5	77.6
80	83.7	78.5	76.7
70	87	78.5	75.7
60	90.2	78.5	74.2

Obviously to get below 58.5 per cent would require dehumidification and not evaporative-cooling. Of pointed interest here is the fact that higher relative humidities allow lower room temperatures to be maintained.

If this were an actual weave room at, say, 80 per cent relative humidity, there would be internal heat to be picked up by the "air change" so that the inside wet-bulb temperature would be elevated above that of the fresh air. A reasonably designed system might then be able to produce actually an 87° dry-bulb temperature, rather than the theoretical 83.8° given. If this were a spinning room with high heat pickup, maintained at 60 per cent relative humidity, the inside temperature for a reasonable air change then might be 95.5°, rather than the theoretical 90.2°.

DATA SHEET FOR ESTIMATING EVAPORATIVE-COOLING SYSTEM

No.	Item	Btu per hr
1	Motors: Under 2 hp: Total hp × Over 2 hp: Total hp × or actual kw input × 3416	
2	People: Number × 700	
3	Lights: Total watts × 3.416	
4	Miscellaneous	
5	Total generated heat gains	

No.	Item	Dimensions	*A*	*U*	*To—Ti*	Btu per hr
6	Outside wall					
7	Outside glass					
8 9 10	Inside wall Inside glass Floor					
11	Ceiling					
12	Total conducted heat gains					

No.	Item	Dimensions	*A*	*Fal*	Btu per hr
13	Wall				
14	Wall				
15	Glass				
16	Glass				
17	Monitor glass				
18	Roof				
19	Total solar heat gains				
20	Total all heat gains—items 5+12+19				

The foregoing outside wet-bulb temperature is an extreme for central Georgia, probably not exceeded during more than five per cent of the summer cooling time. More favorable wet-bulb temperature would give lower produced inside temperature. For example, a 72° outside wet-bulb temperature could result in all of the inside conditions cited, being reduced 6.5° approximately.

Under the limitations of evaporative-cooling it would be well to point out here a common misconception that no evaporation or cooling can take place when the outside relative humidity is as high as the relative humidity desired inside.

Assume outside conditions 88° dry-bulb temperature; 76.5° wet-bulb temperature; 60 per cent relative humidity; 118 grains of moisture per pound of air. The room to be cooled is a high-heat-load spinning room held at 60 per cent relative humidity and equipped with an evaporative-cooling system. A reasonably designed system might produce a 94.5° dry-bulb temperature and 60 per cent relative humidity against such an outside condition. Air at 94.5° and 60 per cent contains approximately 24 per cent more moisture than air at 88° and 60 per cent, and this 24 per cent represents the amount of water which can be evaporated without changing the relative humidity even one per cent.

All of the preceding applies only to "direct" systems. Indirect systems will have the same room dew-point temperature as the outside wet-bulb temperature for all humidities, and although the minimum possible temperatures are not quite as low as can be produced by the "direct" system the same rules apply, namely, the higher the inside relative humidity is carried, the lower the room temperature can be maintained.

Figuring An Actual Job

The cost of a job depends upon the size of the equipment, and the prime factor, determining the amount of air to be handled, water to be evaporated, etc., is the total internal heat load.

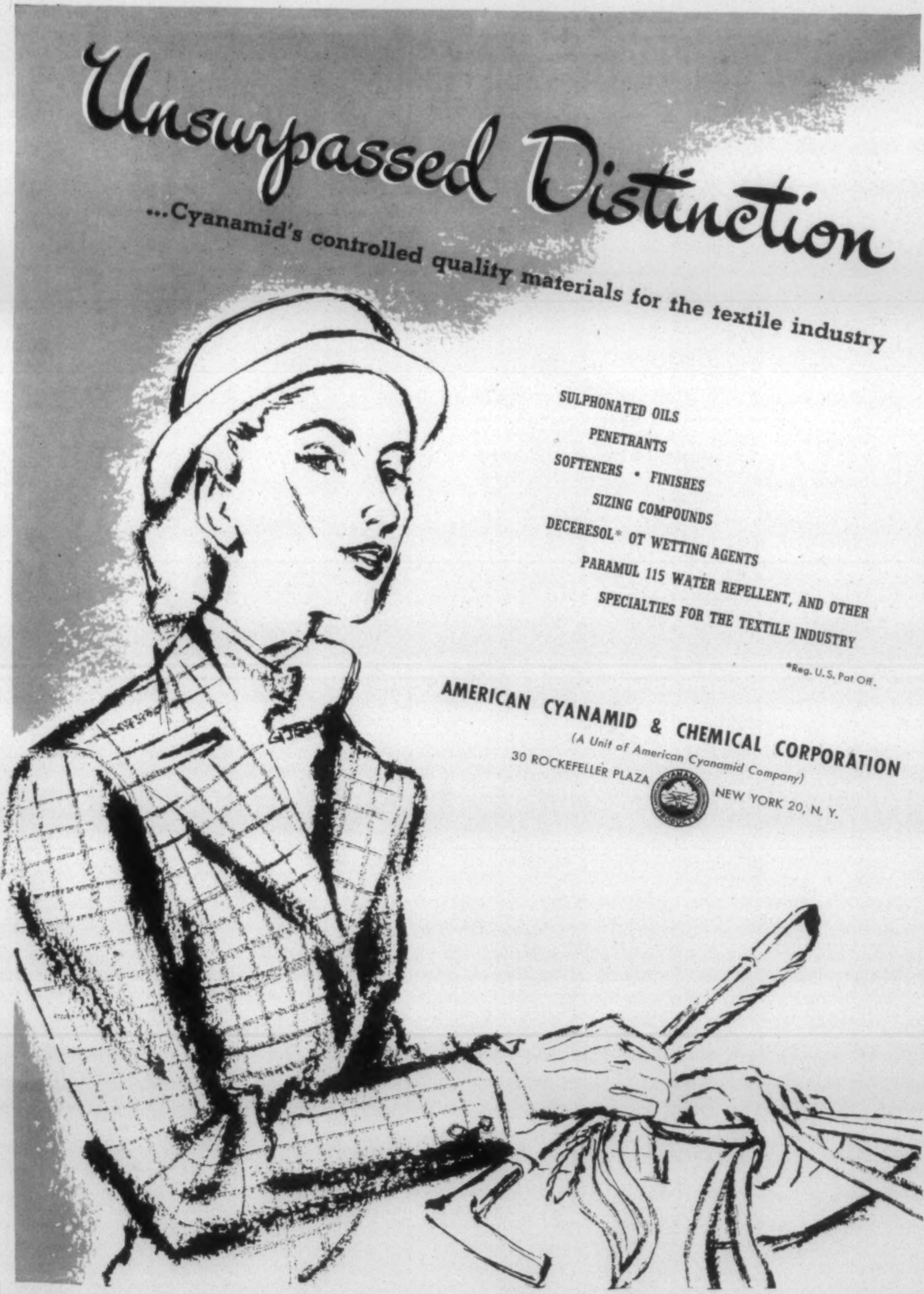
A data sheet, for evaluating all the elements going to make up this total, is given herewith. It will be noted that there are three types of heat gains given in the data sheet: (1) heat-generated motors (includes frictional heat given off by the driven frames, looms, etc.); lights; people; (2) heat gain by conduction through walls, floors, ceilings, glass, etc.; (3) solar-heat gains such as direct sun on roof, walls, or glass. If the management can reduce any of these factors, the size of equipment and the price of the job are automatically lowered.

Assuming all the elements of the first type, motors, lights, people, etc., are at their highest efficiency, no reduction can be looked for here.

The second type, "conduction," generally plays a small part in the total so a cautious eye should be given to money spent here for insulation, etc., lest we be guilty of "spending a dollar to save a cent."

Solar-heat gains very often play a major part, percentage-wise, in the total heat load, and careful attention should be given to reducing solar-heat gains by such means as spraying and insulating roofs, painting—

(Continued on Page 50)



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Part Three

The first article of this series dealt with the codified plans now being offered the textile industry for the classification of all types of dyed, printed and finished fabrics. Part Two brought out the need for thorough charting of all colors as to their fastness properties when given resin treatment (urea formaldehyde and melamine). Fastness properties should be shown for all of the various yarns as well as effect fibers.

The accompanying article takes up additional tests and data that have been shown from plant practice to be of real value on the novelty blends and acetate and viscose spun rayon fabrics. Special new tests that have been developed because of increased use of resin finishes are stressed.

THE previous article outlined many of the older and newer tests that aid plant officials and dyers in selecting dyestuffs for either the various synthetic blends now being processed or new fabrics to be offered after the war. Special study of the effect of urea formaldehyde and melamine resins on the fastness of different colors on all fibers was stressed.

Interesting tests that must be worked up and ones that will require a thorough investigation both by the resin makers as well as the makers of acetate colors are those of testing resin treated fabrics containing dyed acetate fibers. The standard A.A.T.C.C. gas exposure test may be used for the gas exposure test, since a majority of acetate colors are not affected on the light fastness when resins are applied and cured at high temperatures, but are changed on other physical and chemical characteristics which may alter the fastness to atmospheric gas. After acetate dyed fibers have been treated with resins and cured at the high temperatures, many of the acetate colors with best fastness to light and washing show up poorly when given a subliming test. This may be a chemical or physical characteristic that can be corrected, but each acetate color should be tested before and after being resin treated so that there will be no discoloration on adjacent fibers where a sensitive acetate color sublimes when being cured at 300-400° F. after a resin is applied.

Part Two discussed some of the older and newer tests that are of practical value in helping plant officials select dyestuffs and auxiliaries that will give the better quality fastness and feel to the finished goods. These tests were strength and exhaust on dyes, resin treatment, cation softener, range of light, range of wash, perspiration, crock, atmospheric gas, and sublimation before and after resin treatment.

In addition to this group of essential fastness tests required to determine the feasibility of using certain colors for fabrics requiring the best quality in color fastness and finish, there are other dyeing, finishing and reworking characteristics that a dyer must be familiar with. Some of the properties require special type of tests to be worked up that simulate the actual processing operation when carried out on a plant scale. Some of the chief ones are: (1) cross dyeing; (2) effect of diazotizing and developing operation on the original shade of direct and acetate colors when dyed on viscose rayon and acetate rayon, respectively; (3) the dischargeability of direct colors on viscose rayon and casein fibers before and after resin treatment; and (4) the dischargeability of acetate colors dyed on acetate and casein fibers before and after resin treatment. These special dyeing and dischargeability characteristics of each type of color will be discussed briefly as to simplest procedure for making test so it will be of practical value.

Cross-Dyeing

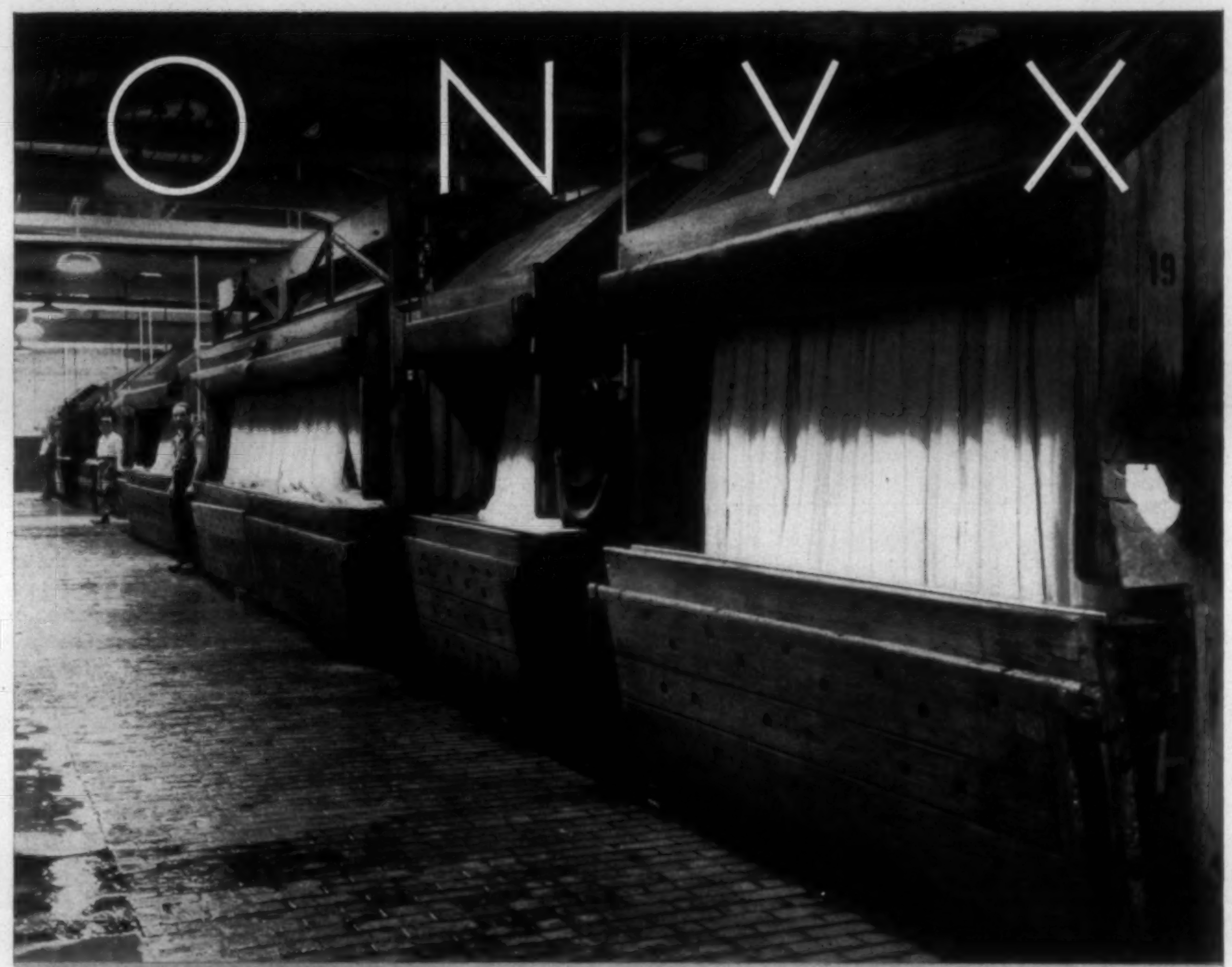
The plant chemist and dyer in a piece goods plant should have some type of multi-fiber cloth which can be entered into dyebaths in each group of colors under test. Most of the best informed dyers possess a good working knowledge of direct colors that resist silk and acetate, and which of these colors can be used in the presence of wool with the least amount of staining.

With the introduction and increasing use of casein fibers, chemists and dyers started from the basis that all wool colors could be employed, but on this point they quickly found themselves in error. Chemists and dyers set up numerous types of tests for checking the dyeing characteristics of wool (acid and neutral dyeing acid) colors, direct (substantive) and direct dyeing acetate colors on casein fibers at different pH values varying from five up to 9.5-10 and temperature varying from 160 to 200° F. in the presence of wool, cotton, mercerized cotton, acetate rayon and viscose rayon.

A study of the dyeing results gave a dyer some reliable information on the handling of different blended fabrics. Some of the general characteristics noted from such a study of dyestuffs showed that by properly controlling the pH of the dyebath and keeping it free of alkalies or soap harmful to the casein fiber, the different types of colors would exhaust and render good unions between the different fibers in the blended goods.

Neutral dyeing wool colors generally exhausted heavier on the casein fiber than wool if the pH was around six to seven than at eight to 9.5, while direct colors dyed the casein fibers heavier at 175° F. and a pH of nine than at a lower pH value.

Acetate colors gave about the same rate of exhaust at the different pH values, but dyed heavier at higher temperatures. Dyers quickly learned that pH values past eight and dyeing temperature of 175° or higher tended to increase



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the "shedding off" of the casein fiber during drying and finishing operations. They profited by these observations by keeping all dyeings in the safety zone in order to obtain a fabric which retained a large percentage of fibers in their original gray construction. The increasing use of acetate rayon with wool in various constructions has troubled many dyers, since they tried to use the colors on hand for these blended fabrics without a thorough check as their cross-dyeing properties.

Many of the neutral dyeing wool colors leave acetate in a resisted state, while others stain lightly. The reverse is true of direct dyeing acetate colors; direct dyeing acetate colors stain wool and in many cases actually dye it to the same extent as the acetate. This lack of real facts on the staining of wool by acetate colors has caused a series of careful cross-dyeing tests to be worked out on wool-acetate, rayon-cotton and viscose rayon combination fiber blends. Thus a dyer can see how the direct, acetate and neutral colors dye or resist these fibers at temperatures of 180 to 210° F. and at a pH of 8.5 to ten.

Testing procedure for checking the effect on the original shade of the chief acetate colors dyed on acetate goods in the presence of viscose rayon, wool, casein fiber and cotton is to dye the acetate color and then run through the standard diazotizing procedure of hydrochloric acid and nitrite of soda and rinsing cold. Then cut this diazotized fabric into necessary portions and run in different developing baths containing Beta Napthol, BON, MTD and Napthol AS. From careful tests a dyer will gain sufficient information to carry out some clever dyeing operations on a surprisingly economical basis, but he must know exactly how the cross-dyeing as well as developing results will show.

Many of the faster to light and washing direct acetate yellows are affected only slightly by developers listed; this holds true for the faster to light dyeing oranges. There are numerous acetate yellows and oranges which are color intermediates of basic nature, with an amino group sufficient to be diazotized, couple with these developers and thus create new shades and colors on the acetate; the stain effect will also show up on casein fiber and wool. These newly developed shades ranges created from yellow and oranges run from wine to reddish browns. There are a few of the yellows and oranges that are partially destroyed.

A majority of the acetate reds and rubies show no effect from diazotizing or developing operations, although a few of the brighter acetate reds such as Acetate Red 3B are partially destroyed by the diazo bath. Practically all of the acetate blues are noticeably affected or destroyed by diazotizing and developing operations. The same holds true for direct acetate grays, blacks, browns and greens, which are all color mixtures; having blue components the dyed shades are affected as the blue portion is affected.

On the direct colors to be used in dyeing viscose rayon or cotton in the presence of acetate which in turn is to be dyed with developed acetate colors, the only test of value is to run the direct dyed goods through a diazotizing and developing bath, using BON in developing acetate colors due to the good fastness of shades obtained. Results show a wide range of direct colors that can be used without noticeable color change resulting from—*(Continued on Page 54)*

Utilization of Permanent Coded Informative Labels Is Proposed

A SYSTEM of permanent textile labeling and a supplementary educational program was proposed by Henry F. Herrmann of General Dyestuff Corp., speaking before the meeting of the New York Section of the American Association of Textile Chemists and Colorists last month. Mr. Herrmann is A.A.T.C.C. vice-president.

The speaker pointed out that the amount of information that must be included on an informative label would be too lengthy and too scientific to be suitable for the ultimate consumer. "Furthermore," he said, "the present practice of supplying such information on the part of some of our best textile establishments is unsatisfactory because it is in the form of string tags or loose leaflets which accompany the garments and are lost soon after and to all intents and purposes the information is not available when it is most wanted — when garments are to be cleaned, or dissatisfaction begins to manifest itself because of defects which are not revealed until they have gone through an extended period of service."

The permanent label which he proposed would be in the form of a simple letter or numeral code which can be attached to each garment at minimum cost. An explanatory code book should be set up through the co-operation of the various industries which are concerned with the problem, for distribution among consumers, merchandising establishments, as well as the laundry and dry cleaning trades. He emphasized that an educational program would enter as an essential feature of the entire project of intelligent as well as intelligible informative labeling of textiles. The code proposed would consist of "an appropriate letter to designate the fiber content of the material, followed by four or more numerals, each of which would define fastness or quality characteristics."

Mr. Herrmann stated that the A.A.T.C.C. has adopted a definite policy on the subject of informative labeling and has been proceeding on the general principle that "this association is a scientific society which is primarily concerned with the establishment of quality standards and appropriate testing methods. It should continue to remain aloof from merchandising problems and from any movement pertaining to, as well as from, agencies which may be set up to regulate our industry." He added that the A.A.T.C.C. was prepared to assist other groups more closely affiliated with merchandise and consumer contacts by participating in their conferences in an advisory capacity.

According to Dr. W. E. Coughlin, director of the textile laboratory of Good Housekeeping Institute, speaking at the same meeting, the desirability of useful informative labeling on textile products is recognized by both manufacturers and consumers. Dr. Coughlin went on to say that "although the lack of adequate test methods and correlating wear-test data have been draw-backs to more extensive informative labeling, this inadequacy should not be used as an excuse to dispense with all informative labeling." He also pointed out that the two most frequent complaints from consumers are concerned with shrinkage and color resistance. These complaints frequently occur on fabrics where no information is available to help the cutter decide upon a wise use of fabric. The misuse of textile products may be minimized if the cutter is supplied with more useful information.

Herbert A. Ehrman of the division of trade standards of the National Bureau of Standards, the third speaker at this meeting, stressed the fact that a single system of color fastness terminology should be adopted and prophesied a considerable demand for a better correlation between laboratory test methods and the end uses of fabrics when such standard terminology is regularly employed and when consumers learn its real significance. Mr. Ehrman's paper covered the need of standard methods of test supplemented by standard ratings as the basis for a system of color fastness terminology and cited "Textiles—Testing and Reporting, Commercial Standard CS59-44" as a contribution toward those ends. It outlined the work accomplished by the conference of representatives of consumers, distributors, finishers, producers and technologists at the National Bureau of Standards in 1942 in recommending a terminology to the Federal Trade Commission for consideration and discussion as trade practice rules.

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DYEING AND FINISHING

Dyers and the Study of Dyeing

By GEORGE BROUN

This short article is addressed to all plant officials who operate dyeing and finishing departments, as well as dyers and prospective students of textile chemistry and dyeing. As there has been so much bunk spread about "born" dyers, technically trained dyers and men who have learned by the long, hard and practical way, the writer is giving a few observations that may help some parties connected with the textile industry get a clearer picture of dyers and the study of dyeing.

DYEING is one of the oldest arts. It started when ancient Egyptians used dyes produced from vegetation as well as minerals, and then produced Tyrian Purple from sea shells of certain varieties, which latter day scientists have determined to be di-brom-indigo. The Persians rated the dyer as one of their nation's valuable men and if he missed the shade or had a bad dyelot, history tells us that the colorist could go and bury it. Many modern dyers would have enjoyed being a dyer in ancient Persia. The English held to the great secrecy of the ancients in their guilds but as coal tar dyestuffs were developed gradually, dyeing became both an art plus a scientific study of new procedures with which to apply these coal tar derivatives most effectively to the natural vegetable and animal fibers and fabrics.

Present-day dyers usually are grouped under three classifications by laymen of the textile industry—"born" dyers, practical dyers and technically trained dyers.

This first class, born dyers, largely grew out of the imagination of textile laymen. Under present dyeing methods and with the many types of fibers to be handled, a dyer is not just "born"—he must acquire his training through technical study as well as practical application and that comes only through hard work.

The practically trained dyer is one who has come up through the ranks by being a careful and observant machine operative, then helping as a floor man and weigher of dyestuffs, then acting as a second hand for checking correctness of shade, the dyelots, then making the necessary addition of dyestuffs and chemicals. This practical dyer then emerges as the head dyer, but all of his information is based largely on the immediate plant or type of fibers and fabrics that are being processed in it. This man is in most cases a smart dyer but is limited in his capacity to do the job that may be expected of him in the future, unless he is a student.

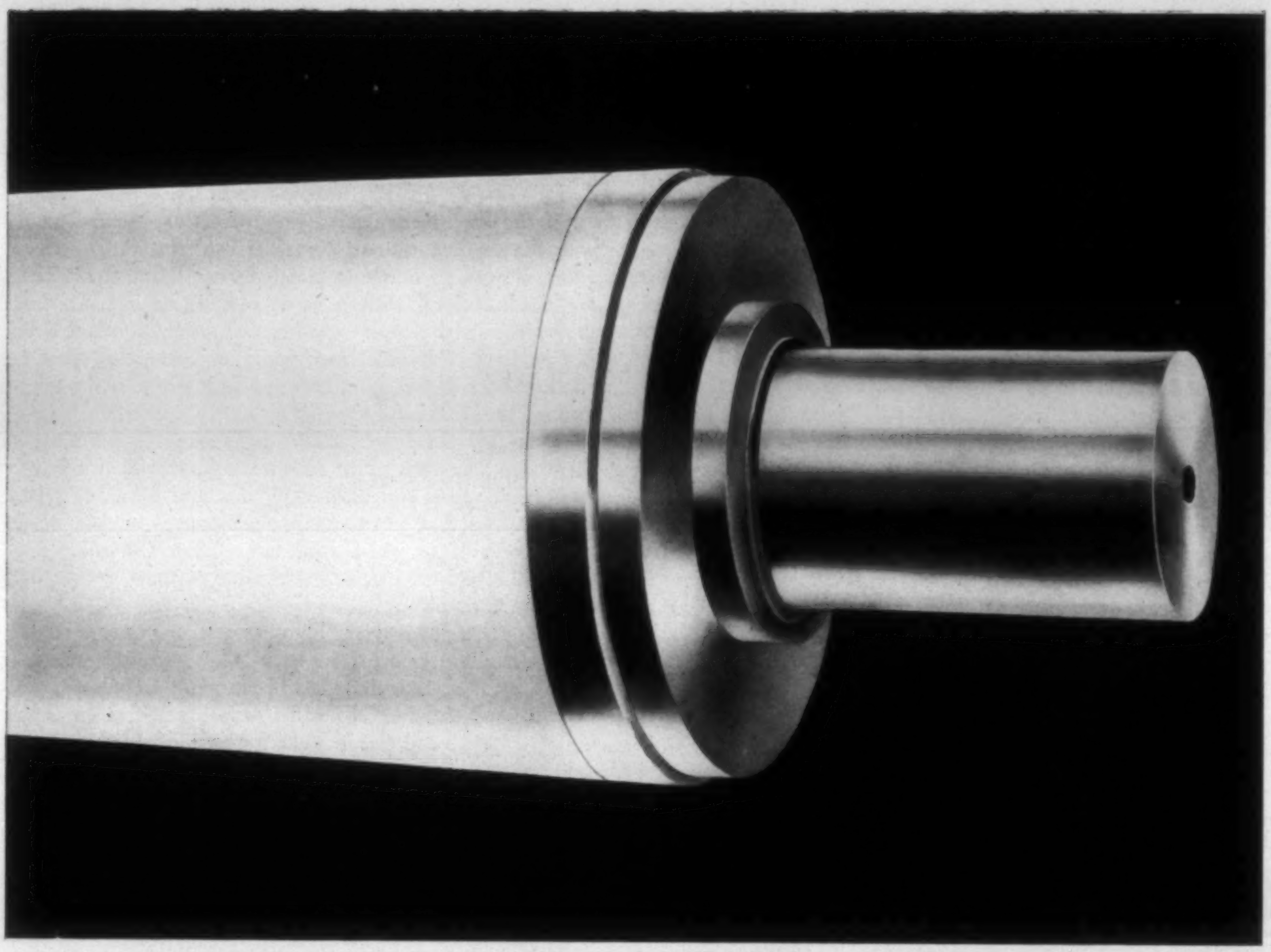
The technically trained dyer is a person who has a good knowledge of the chemistry of dyestuffs and dyeing methods as well as full information concerning all natural fibers plus the synthetic fibers. This person may have had the privilege of working in a dyestuff company's application laboratory where a good knowledge of dyestuffs could be acquired, though this is not usually the case. Such a technically trained dyer could then go into a plant and make practical tests on a small scale before trying to apply these to full size dyelots. The technically trained person could acquire sufficient practical knowledge by gradually observing and working with machine operatives to make himself a valuable supervising dyer because of his wider technical knowledge.

There are many angles that the technically trained dyer must learn and these can be learned only by applying common sense with the technical information already possessed.

Dyers, dyestuffs and dyeing plants are the same as human beings—no two are exactly alike. To this may be added the fact that no two natural fibers or synthetic fibers or fabrics possess identical dyeing and finishing characteristics. These are the eccentricities of the dyeing and finishing industry, and the sooner that the head lay textile officials of such companies come to a full understanding of this situation the quicker will they have a sound and economically run dyehouse. A lay textile official may criticize this statement as being unbusinesslike, yet the writer has heard numerous otherwise sound executives say that their dyeing and finishing departments must run goods off with equally standard quality as produced by the knitting or weaving department. Now any officials with a full understanding of mechanics will realize that mechanical faults usually can be corrected in knitting and weaving operations as soon as they are observed. Dyeing and finishing are visual to a partial degree. The balance is made up of chemical, temperature and time control plus that *seventh sense* that both practical and technically trained dyers must have if they are to be rated successful—and that is "timing" plus a dyer's artistry of color knowledge! There have been no machines yet evolved that equal a properly trained dyer, though the spectrometric units possess possibilities of becoming a valuable tool if the technique of operating can be shortened and made economical to handle.

Hints To Help the Practical Dyer

A question often asked is how can a practical dyer acquire sufficient technical information to help him be better fitted to carry out the dyeing and finishing of new fiber constructions so that his management will feel assured of obtaining satisfactorily finished goods. The practical dyer should first become a member of technical associations such as the American Association of Textile Chemists and Colorists, attend their technical meetings and enter into publi



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discussions as much as possible. His company will usually subscribe for the best technical publications and journals. These should be carefully read on subjects that are not too theoretical and ones that explain processing of textiles in a semi-technical and thorough style. All technical articles based on the fundamental processing jobs of all natural and synthetic fibers should be clipped and filed. Do not clip articles that are reprinted, but ask textile chemical or dyestuff manufacturers for original publications and specific recommendations on handling of new fiber constructions; then file this information. Now try to use the technical recommendations given—don't act like an ostrich and hide from new ideas, thinking "you know your stuff so well that you need nothing new."

If you are a dyer in a textile plant you will want to rig up a small laboratory for making tests on new dyestuffs, procedures recommended to you and checking money value on dyestuff and dyeing assistants that you use in your work. A hosiery dyer, package dyer, knit goods or piece goods dyer needs: (1) dyebath, to be heated by steam or gas, as the case may be, using some agent such as glycerine, diethylene-glycol, sodium formate, or other chemical agents to give higher boiling points on bath so that your dyebath will actually be dyed at a boil and not run at 190-200° F. obtained from a straight water bath; (2) chemical balances of the chain-o-matic type; (3) stainless steel beakers and rods; (4) crown glass solution bottles; (5) necessary glass pipettes, graduated cylinders; (6) small hot air or electric dryer; and (7) small hydro-extractor.

THERE'S ONE IN EVERY MILL

—by WILMER C. WESTBROOK

The know-it-all type likes to show his knowledge of everything. Mention any subject and he can give *expert* advice. On the job he can tell you how anything should be done, and usually points out the fact that you are doing it wrong. He is so busy expounding his ideas and giving advice that his own job is neglected. The best way to handle him is to insist on a demonstration—and a few doses of having to make his ideas work will make him more careful about sounding off about his superior knowledge.

For hosiery dyehouses, drying forms are needed along with the small hot air or electric dryer. For yarn, package and raw stock dyehouses one to ten-pound sample machines are needed along with a small electric or hot air dryer to dry the dyed samples quickly. The regular plant dryer can be used to handle small samples, since they must be checked later in the plant. A knitting machine is needed to knit up the dyed yarn at various points to ascertain if color formula gives level dyed results satisfactory for running on plant size lots. With knit goods, usually handled similarly to hosiery, goods run on a small machine are usually best dried and finished on plant size equipment if samples are to be comparable to plant dyed lots. Then from the dyed goods, a dyer can evaluate the value of new dyeing and finishing formula use.

For a piece goods dyer, the other essential unit needed is an electrically driven padder built much like plant size machines. In the South there have been plant laboratory models designed and built by plant technicians and engineers which have served the double purpose of helping dyers develop their own equipment as well as train future ones on the miniature machines, thus helping to train many fine piece goods dyers of the present time. Butterworth Co. builds an excellent laboratory model, designed similarly to its "microset" models, and any plant official looking for ideas could contact this firm or other progressive textile finishing machine makers. A miniature jig is not a necessity but proves of value in dyeing sulfur colors. A well trained dyer running padders and jigs will find that these different operating procedures can be followed satisfactorily if pigment padded and then dyed in the beaker to imitate plant dyeing in jig. The dyer naturally reduces the vat color on the jig and if it is a direct it may be jigged to obtain penetration and levelness of shade. By contacting the better trained dyestuff technicians a dyer can obtain working procedures that will help materially.

In dyeing napthols, the dyer will need a larger hot air or electrically heated dryer to imitate the hot flue continuous drying operation. Plant size hot air dryers are made by Andrews & Goodrich Co.

Distribution Plan Is Discussed

The proposed method of distribution of textiles by its chemicals bureau to the coated textile industry was discussed at the recent meeting of the pyroxylin and vinyl coated fabric industry advisory committee, the War Production Board reported. WPB officials explained that the proposed change in distribution of textiles to the coated fabrics industry would be accomplished by means of a directive to Order M-317-a (cotton fabric preference ratings and restrictions). Formerly the textiles for coated fabrics were allocated through the textile, clothing and leather bureau under M-317-a. In accordance with the proposed directive all requests for fabrics, except for fabrics to be rubber-coated, may be made to the chemicals bureau by plants which own and operate coating machines.

STARCH *is at War*★

★ in **PAPER** used to plan the attack

U. S. Navy Photo

— a U. S. Navy photo records the damage to a Jap Pacific air base. Reconnaissance photos provided detailed installation data. And objective maps, prepared by skilled photo-interpreters, selected the targets for pin-point bombing. Photographic paper and special paper necessary for accurate speed reproduction of military charts and maps use *substantial quantities of starch!*

★ in **TEXTILES** used to make the attack

U S Army Photo

Snow capes, like camouflage cloth, increase the effectiveness of a soldier in battle. And like barrage balloon cloth, cotton duck, tent twill, surgical gauze, parachute cloth for flares — they're made of single yarn fabric. None could be woven *without the use of large quantities of starch* as warp size.

DO YOU KNOW? that starch products are also used in signal flares, colored smoke grenades and sky markers to control the burning rate . . . in batteries as a carrier for the electrolytic agent . . . in field rations as a basic food item in the diet of our fighting men . . . in drugs and medicines to facilitate tableting, to standardize dosage, to increase the rate of dispersion . . . in aluminum to hasten settling and filtration of the crude sodium aluminate solution . . . in boiler treating compounds for especial Navy use.

Remember this — if you're unable to obtain starch products to meet your civilian requirements — *starch is at war in hundreds of ways!* Our first responsibility is to formulate and produce starch products for vital war applications. National is proud of the high trust placed in its research, service and production facilities by our armed forces.

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To Train Union Organizers

Last year the extension division of the University of North Carolina attempted to hold a training school for union organizers but became frightened by the adverse public sentiment and quickly cancelled same.

The reason given for cancelling the school was false, the obvious reason being that the North Carolina Legislature was soon to meet and university officials were expecting to make large requests for appropriations.

We recently noted the following newspaper dispatch:

> Chapel Hill, June 9.—The Textile Workers Union of America (CIO) will hold its fourth annual Southern training institute at the University of North Carolina here Aug. 5-11.
>
> In announcing the date, Russell M. Grumman, director of the University extension division, said attendance would be limited to 35 officers and shop stewards.
>
> Lawrence Rogin, TWUA educational director, will be in charge of the institute.
>
> Dr. Frank P. Graham, president, and other members of the university staff, will speak at various times during the program.

The North Carolina Legislature, which meets bi-annually, does not gather again until January, 1947, and it seems to be considered safe to now hold the training school of CIO organizers.

Coincident with the notice of this meeting, Russell Grumman, director of the extension division of the University of North Carolina, sent out a statement attempting to place this training school for CIO organizers upon the same basis as an institute for bankers.

In making such a statement Mr. Grumman can justly be accused of being something of a hypocrite, because there is no relation or similarity between a banking institute and a training school for CIO organizers.

The bankers institute would consider matters relating to the operation of banks. The counterpart of the CIO training school would be a meeting of manufacturers to consider ways and means of circumventing union organizers.

We feel certain that Mr. Grumman would not favor or participate in any such meeting of manufacturers nor would it be welcomed at Chapel Hill.

When the 1944 training school was cancelled at Chapel Hill "because of polio," it was moved to Black Mountain, N. C., which was very close to Hickory, N. C.—the center of the 1944 polio epidemic—and Mr. Grumman went to Black Mountain and was an active participant in that meeting.

Only a short time ago many North Carolina farmers, wishing to work at an Army construction project, were met by CIO organizers and told that they could not work unless they paid a fee of $75, or some such amount, to join the union. When more workers applied than were needed the CIO had some of those who had paid $75 discharged in order to admit other workers and collect more fees.

There never was a more contemptible racket worked upon citizens of North Carolina but because the Army knew that the CIO would force a strike and stop the construction of a much needed Army camp, it had to permit the fleecing of the farmers.

During the early and critical days of the war in Europe, when the production of war materials meant the lives of the young men who were fighting for us, the CIO pulled strike after strike, including sit-down strikes.

Now that the war in Europe has been won in spite of the CIO and that organization needs better trained organizers to perpetuate its income, the University of North Carolina opens its halls to them and holds a "Southern training institute for union organizers."

Mr. Grumman may offer hypocritical excuses for holding the CIO training institute but, in our opinion, there is one and only one reason and that is that there is a desire to help the CIO get a stronger hold upon the industries of North Carolina.

A Fine Gesture

Fuller E. Callaway of LaGrange, Ga., recently spent a day in Greensboro, N. C., visiting the plant of the Carter Fabrics Corps. and hearing W. J. (Nick) Carter, who organized the North Carolina Textile Foundation, Inc., describe the plans for a great program of education and research at the school of textiles at North Carolina State College.

Upon his return to LaGrange, Mr. Callaway wrote Mr. Carter as follows:

> Callaway Mills has watched with interest the development of the North Carolina Textile Foundation, Inc. Although our manufacturing plants are all located in Georgia and our chief source of textile school graduates in the future will probably be Georgia Tech and Auburn, we, nevertheless, will in all probability from time to time continue to be interested also in the textile school graduates from North Carolina. With this in mind, we feel that it is to our business interest to assist your foundation in its worthwhile effort to improve the standard of textile graduates in your state and I, therefore, take pleasure in enclosing Callaway Mills' check payable to the North Carolina Textile Foundation, Inc., in the amount of $5,000 to be added to other similar funds, and used by your foundation for improving the standard of textile graduates.

This was certainly a fine gesture upon the part of Fuller Callaway and forecasts a much desired co-operation between the schools of textiles at North Carolina State College, Clemson College and Georgia Tech.

It is our ambition to see great textile schools at the three colleges named; we believe by that working together and exchanging research information they can do much for the textile industry.

Donations to the North Carolina Textile Foundation now slightly exceed $700,000, and will be increased before the end of this year.

We understand that the J. E. Sirrine Textile Foundation of South Carolina has $820,000 in sight and the Textile Education Foundation of Georgia has received $540,000 to date, which is more in proportion to its spindles than either of the others.

With these funds it should be possible to build three great textile schools, and we frankly do not feel that there is much justification for any others.

There are not enough spindles in Alabama to justify re-establishing the textile school at Auburn upon any such basis as the above and we feel that Alabama could well afford to devote its funds to engineering and agricultural education and encourage Georgia Tech to train textile operating executives for this neighboring state.

There is a movement to establish textile education in Virginia but with Raleigh, N. C., so close to Virginia, they should not let any sense of state pride warp their better judgment. Virginia could get far more for the money it spends at V. P. I. by concentrating upon agriculture and engineering, especially chemical engineering.

The very fine gesture of Fuller E. Callaway in donating $5,000 to the North Carolina Textile Foundation may be taken as indicating that there will be close co-operation in education and research by the schools of textiles in North Carolina, South Carolina and Georgia.

George Wright Before Banking Committee

The cotton textile industry is indebted to George M. Wright, president of the Republic Cotton Mills, Great Falls, S. C., for a timely appearance in Washington, D. C., before the House Banking and Currency Committee and for a very able presentation of the position of the industry.

The principal points stressed by Mr. Wright were approximately as follows:

1. The cotton mills have not made any large profits from the gray goods covered by OPA price ceilings.

2. OPA has forced mills to resort to other lines of activity (i.e., cotton purchases, rayon, other synthetic fibers, converting, etc.), and OPA is prohibited from doing this by the act itself.

3. OPA has accused cotton manufacturers of large profits so as to cover up OPA's own bungling of the price ceilings on garments and finished goods at the retail level.

4. OPA has clearly looked upon cotton manufacturers as dishonest and it needs to change its attitude in this respect.

5. Cotton mills desire no subsidy, no handout, but simply request a realistic, fair pricing which will reflect all costs and afford a reasonable profit. The best method to stimulate production is not subsidy but is to afford fair and reasonable price ceilings.

6. The cotton mills have performed an unusual feat in increasing their production in support of the war without the necessity of Federally subsidized new plants and equipment. With their old plants they have increased production and will do everything that they can to continue to do so long as the war requires it.

7. The net worth formula is the most damnable and vicious instrument ever laid upon industry and it has retarded production and the war program. Industry cannot live under it.

8. The industry recommends the continuation of the Emergency Price Control Act for a year and asks no amendment but it urges the committee to so draft its report as to limit the operations of the OPA to the original intent of the act. The industry insists upon price control but vigorously opposes the profit control which the OPA attempts through the net worth formula.

Losing Our Democracy

Dean Emeritus Roscoe Pound of Harvard Law School has written of his deep concern over what he considers one of the greatest internal dangers to liberty that America has ever faced.

That danger is the subtle and insidious substitution of government by decree, or, as he describes it, "administrative absolutism," to government by law.

The venerable legal statesman, whose great law school quite ironically, has been turning out its full harvest of crackpot lawyers and self-styled economists, has put his hand on one of the really great perils to American democracy.

"Instead of our fundamental doctrine that government is to be carried on according to law, we are told that what government does is law," he says.

"Instead of a law which thinks of citizens and officials as equally subject to law, we are told of a public law which subordinates the citizen to the official and enables the latter to put the claims of one citizen over those of another . . . according to his personal ideas for the time being."

Dean Pound is quite obviously referring to the entire system of the emergency wartime powers which have been created by executive orders and which function all too freely in a manner that is outside of the framework of democratic action.

That is the major reason, and reason enough it is, that at the earliest possible date when the war with Japan is over, these bureaucracies must be abandoned and that government by law must be re-established in Washington.

Otherwise we shall have lost our democracy in America.
—*Charlotte Observer.*

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to save waste paper! Why? Because paper is a No. 1 war materiel shortage. Paper makes or wraps over 700,000 items used by our armed forces. Many of these must now be double and triple-wrapped to protect them against tropical climates for the Pacific war. And remember . . . home front needs will not be allowed to slow down the packaging of such essential military supplies as blood plasma, shells and field rations.

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MILL NEWS

CONSTRUCTION. NEW EQUIPMENT. FINANCIAL REPORTS. CHARTERS. AWARDS. VILLAGE ACTIVITY. SALES AND PURCHASES

ASHEVILLE, N. C.—An agreement signed June 2 ended two years of disagreement and litigation between members of Local Union 2598, United Textile Workers of America, and American Enka Corp. Representatives of the local union, international union and officials of the company signed the agreement, which involves: (1) settlement of the suit in Federal Court; (2) settlement of the damage action brought in the state court against the union; and (3) a four-cent-an-hour wage increase for the Enka workers, subject to the approval of the War Labor Board.

GREENSBORO, GA.—In accordance with the executive order of the President, the Secretary of War has authorized and directed Capt. James D. Hammett, War Department representative in charge of the plants and facilities of the Mary- Leila Cotton Mills, Inc., to take possession of and operate the plants and facilities of the company. A labor dispute closed the mills April 2.

MARIPOSA, N. C.—Alba Twine Mills, Inc., has been sold by R. F. Craig and associates to M. M. Rudisill and others of Lincolnton, N. C. The new owners are now operating the plant.

ROCKINGHAM, N. C.—Entwistle Mfg. Co. has been cited to show why it has defied a Fourth Regional War Labor Board directive ordering maintenance of membership and check-off provisions of a contract with the Textile Workers' Union of America. At a hearing dissenting industry members of the regional board said they believed that the company had shown adequate cause for failure to comply with the directive. After being cited the company filed a petition asking that the maintenance of membership clause be rescinded because of a union statement that it did not feel bound to the no-strike pledge. As a result of the hearing the case has been referred to the national board in Washington.

Shown above are five of the principals who participated in the award of the Army-Navy "E" to the Bennettsville (S. C.) plant of Firestone Tire & Rubber Co. June 5. Left to right: Lieut.-Col. Alexander R. Davis, who represented the Army; Lieut. William E. Anglin of the Navy; William A. Karl, vice-president in charge of textiles for Firestone; Thomas Stubbs, who accepted the "E" lapel pins on behalf of his fellow workers; and Francis B. Galligan, general manager of the Bennettsville plant, who accepted the pennant. The award was won as the result of outstanding production of high quality tire cord fabric.

Another textile plant in South Carolina, Springdale Finishing Co., South, Inc., at Whitney, will receive the "E" award at ceremonies June 27. A third Southern mill, Clearbrook (Va.) Woolen Mill, was honored for meritorious production of military blankets at "E" ceremonies June 8. It has also been announced that the United States Marine Corps Depot of Supplies at Philadelphia and two plants of American Blower Corp. at Detroit and Dearborn, Mich., have received fourth stars for their "E" flags. Equinox Mill at Anderson, S. C., has been similarly honored.

GREENVILLE, S. C.—Mills Mill, operating plants at Greenville and Woodruff, and Fairforest Finishing Co. of Spartanburg County have put into effect a profit-sharing pension plan for all employees who have completed five years of continuous service. Those not eligible now will become eligible Dec. 31 in the year in which they have completed five years service. The companies bear all expenses of the plan and at the end of each year a portion of the profits will be contributed to the fund. The plan is to assure pensions for alleligibles when they reach the age of 65, the amount of the pension to depend on years of service, company profits and individual earnings.

KNOXVILLE, TENN.—The Office of Price Administration has filed a petition in Federal Court seeking an order which will require Cherokee Textile Mills, and A. G. Heinsohn, Jr., president, to bring company records to the court clerk's office. In the petition the OPA claimed it is making a survey in Knoxville to establish maximum prices for cotton products which "will reflect the parity price of cotton plus an equitable allowance for conversion and profits for the cotton fine goods industry." The Cherokee company was included in the survey, OPA stated, and charged that Mr. Heinsohn "consistently and arbitrarily declined to present the records for examination by OPA agents." Mr. Heinsohn is also in dispute with Col. Maurice Hirsch of the Army in the matter of renegotiating the amount of money due the Army from Spindale (N. C.) Mills, Inc., claiming that Colonel Hirsch is "unfair and biased."

GAFFNEY, S. C.—Officers of Gaffney Mfg. Co., who refused to agree to union contract provisions they termed "undemocratic and un-American," received a unanimous vote of "commendation and confidence" from stockholders when the stockholders met June 10. The refusal of the mill officers to agree to the union contract terms led to seizure of the mill by the Army on May 28.

GREENSBORO, N. C.—William H. Barnhardt of Charlotte, and associates, have purchased controlling interest in Southern Webbing Mills here, and have assumed operation No change in officials is contemplated, according to Mr. Barnhardt, who is president of the mill. Officers in addition to Mr. Barnhardt are J. T. Kirkpatrick, vice-president and general manager; F. L. Suttles, secretary; and Warren H. Cooke, superintendent. The capacity of the mill will be increased materially after the war, Mr. Barnhardt states. To this end, building plans have already been drawn and orders placed for some of the additional machinery that will be installed.

GREENVILLE, S. C.—The appeals board of the War Production Board has given complete exemption from Direction 10 to M-328, the spun rayon conversion order, to three of the Henry group of mills in South Carolina. These mills are Dunean Mills at Greenville, Aragon-Baldwin Cotton Mills at Whitmire and Watts Mill at Laurens. The board reserved its decision on the — *(Continued on Page 49)*

ROY CARD GRINDERS

To meet the changing problems that Victory will bring, your carding must be done at top efficiency. Factory service on repairs and maintenance for your traverse grinders. Traverse or Drum Grinders can be completely re-conditioned by expert Card Grinder Specialists, equipped with all the latest improvements and returned promptly.

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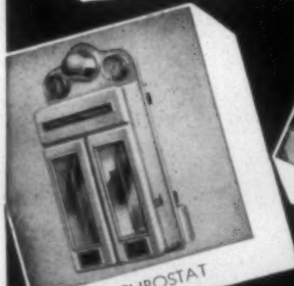

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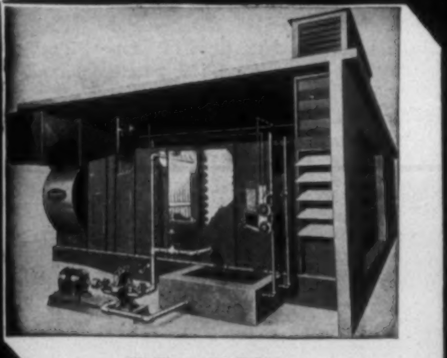

CENTRAL STATION

Parks-Cramer Company
Fitchburg, Mass. Charlotte, N. C.

Promotions, Resignations, Elections, Transfers, Appointments, Honors, Notes on Men in Uniform, Civic and Associational Activity

PERSONAL NEWS

R. W. Arrington, president of Union Bleachery, Greenville, S. C., has been elected president of the Greenville Chamber of Commerce.

J. B. Doar, Jr., secretary and treasurer of the Exposition Cotton Mills Co., Atlanta, Ga., has been elected to the board of directors of the Atlanta chapter, National Office Management Association.

Hughes L. Siever, Southern sales manager for Borne, Scrymser Co. of Elizabeth, N. J., has retired and has been placed on the company's annuity roll. Mr. Siever joined the sales force of Borne, Scrymser Co. in June, 1921, and was assigned to Southern territory. In 1931 he was appointed Southern sales manager with headquarters in Charlotte. In this capacity he supervised the development and marketing of the company's products in the South, where he is well known in the textile industry.

Harry H. Haff, who has been associated with Boger & Crawford, mercerized yarn manufacturers at Philadelphia, Pa., and Lincolnton, N. C., for nearly 20 years, has resigned as secretary of the firm, effective June 15. Mr. Haff plans to start his own yarn sales and textile service and supplies selling agency about July 10 under the name of Harry H. Haff & Co. The offices will be located at 1616 Indiana Ave., Philadelphia.

Zeb V. Simmons is now general overseer of weaving at Otteray Textiles, Inc., in Anderson, S. C. He was formerly employed at McColl, S. C.

Elliot B. Grover, head of the yarn manufacturing department in the North Carolina State College school of textiles, and James T. McAden, associate editor of TEXTILE BULLETIN, were initiated last month as honorary members of Phi Psi Textile Fraternity by the Eta chapter of that organization, which was re-activated this spring. . . . Miss Martha L. Wallace, a 1945 honor graduate of the textile school, has been appointed to direct the work of its physical research laboratory. At the recent commencement exercises she was awarded an honor medal by the National Association of Cotton Manufacturers for proficiency during her academic career, becoming the first woman to receive the coveted prize.

John M. Hughlett, associated 25 years with Riverside & Dan River Cotton Mills, Inc., of Danville, Va., has been appointed general sales manager of the company. He will continue to maintain offices in New York.

William L. Marshall, Jr., until recently head of the legal division of the War Production Board's textile, clothing and leather bureau, has been appointed secretary of the American Cotton Manufacturers Association. He will begin his duties at the association's Charlotte office June 25.

Four employees of the Hopewell, Va., plant of Tubize Rayon Corp. were awarded "certificates of service" June 11 at the company's offices in New York City in recognition of their 25 years continuous employment. The awards followed a three-day sight-seeing tour of New York. Shown above, left to right, are William F. Johnson, carpenter foreman; Tubize Vice-President Earl Van Vliete, who presented the certificates; Gordon G. Rice, accountant; Edward H. Maitland, chief timekeeper; and Kenneth King, purchasing agent.

At a recent meeting of the New York section of the American Association of Textile Chemists and Colorists, officers were re-elected for 1945-46 as follows: Emmett Driscoll, Turner Halsey Co., chairman; Dr. Herman E. Hager, General Dyestuff Corp., vice-chairman; Norman A. Johnson, *American Dyestuff Reporter,* secretary; Paul J. Luck, Calco Chemical Division, American Cyanamid Co., treasurer.

Irving Verry, vice-president and sales manager of the Crompton & Knowles Loom Works, Worcester, Mass., recently completed his 55th year of service with the company. Mr. Verry joined the company as assistant in the drafting room May 26, 1890, and was transferred to the sales department in 1900. He was given entire charge of sales of narrow fabric and silk looms in 1902. In 1913 he was made a director of the company, and in 1916 was added to the executive committee. Further advancement came in 1917 when he was chosen vice-president. In that year, upon the organization of the development board, he was made a member and its first secretary. He became general sales manager in 1935.

A. M. Dixon, president of Dixon Mills, Inc., and Trenton Cotton Mills at Gastonia, N. C., has been awarded the degree of doctor of textile science by North Carolina State College.

Jackson E. Spears has resigned as head of the finished goods section in the Office of Price Administration's consumer goods division to return to his post as vice-president of National Fabrics Corp. at New York. Harry E. Gresenger has become acting head of the section.

Paul F. Zweifel, a senior at Spartanburg (S. C.) Senior High School and the son of Fritz Zweifel, sales and service representative of the H & B American Machine Co., has won a four-year scholarship to any school of his choice in the nation. He won the scholarship in a nation-wide contest sponsored by the Pepsi-Cola Co., which offered two scholarships to the highest scorers of each state. Each scholarship awarded includes full tuition for four years at any college of the pupil's choice, plus $25 per month for living expenses, and payment of certain required fees and a travel allowance.

J. McD. McLeod, formerly associated with Ranlo (N. C.) Mfg. Co., has joined the engineering and traveler department of A. B. Carter, Inc., at Gastonia, N. C.

W. T. Morton, assistant superintendent and general overseer of carding and spinning of Monarch Mills, Ottaray plant, Union, S. C., has resigned.

S. W. Quisenberry, left, Southeastern maintenance sales district manager at Atlanta for E. I. du Pont de Nemours & Co., has been transferred to Wilmington, Del., to supervise the planning and promotion of maintenance and upkeep sales on a national basis. He is leaving the South after a period of 16 years in the textile and maintenance field. W. B. Tatum, formerly district manager of trade sales for DuPont at Dallas, Tex., replaced Mr. Quisenberry at Atlanta June 1. . . . Albert R. Tucker, at one time sales manager of DuPont peroxygen products, has been appointed West Coast manager of the company's electrochemicals department. Frederick C. Schumacher has succeeded him as manager of the Philadelphia district office. . . . Dr. Charles M. A. Stine, for 38 years identified with DuPont research leading to the development of dyestuffs, synthetic rubber, nylon, resins and other company products, retires June 30 as a member of the executive committee. His position on the committee will

—(Continued on Page 48)

Houghton Wool Tops

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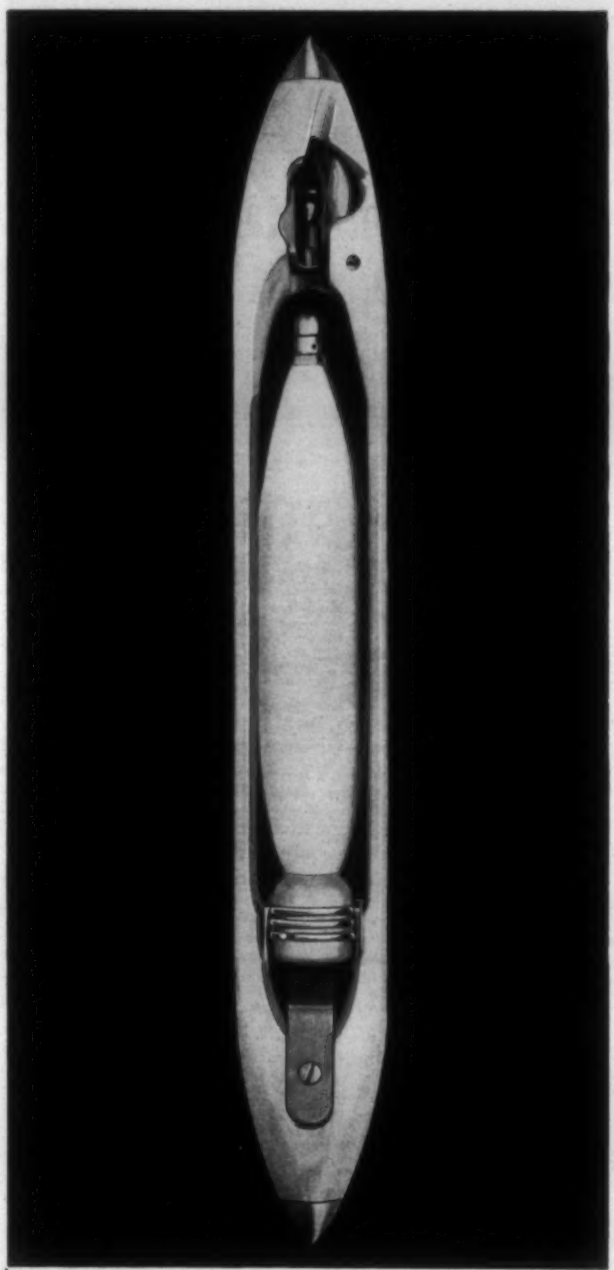

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Wool and Waste Carder and Spinner for Davis & Furber Machines. Prefer Southern man; middle-age man with A-1 references.

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POSITION WANTED—Have had 22 years' practical mill experience; cotton and waste, twines and yarns. 10 years as General Overseer. Would like to contact mill needing as Assistant Superintendent or General Overseer. Address "Box 13," care Textile Bulletin.

DESIRE JOB as Overseer or Assistant Overseer of **Weaving Department. 22 years' experience on plain** and fancy work. Drapers and C & K looms. Now employed but would like to make a change. 40 years old; draft status 4-A. Can furnish good recommendations. Address "S-T," care Textile Bulletin.

WANTED—Position as Overseer of Spinning in either of the Carolinas. At present Assistant Overseer with four years' experience on present job. Write "J-C," care Textile Bulletin.

POSITION WANTED—Head Loom Fixer and Assistant Foreman wishes to make a change. Plain or dobbies. References. Write "X-7," care Textile Bulletin.

WIDELY EXPERIENCED rayon crepe and hosiery throwster desires connection with a reputable concern. References. Write "Box 101," care Textile Bulletin.

SUPERINTENDENT of Yarn Mill seeks position in Southern States. Past eight years superintendent and general manager of North Carolina yarn mill. Presently employed; seek change. References. Address "W-15," care Textile Bulletin.

WANTED—Position as Overseer of Carding or Spinning. Prefer spinning. Now employed. 22 years' experience as overseer. Good reason for making change. Good manager of help and can furnish good references. Age 44; married and sober. Answer "P. T. H.," care Textile Bulletin.

WANTED—Position as Clothroom Overseer; experienced with plain and fancy fabrics; now employed but desire a change. A-1 references. Familiar with handling large job. Address "Box 330-S," care Textile Bulletin.

SUPERINTENDENT, Carder, Spinner, available Above draft age; married; 3 dependents. Experi**enced on all class cotton yarns, carded, comb,** plain and dobby weaver. Specialize in strength. Day work only. References. Address "M-416," care Textile Bulletin.

WANTED—Position as Superintendent. Am now assistant superintendent of ply yarn mill; have been on this job for two years. 38 years of age; married; completed I. C. S. course; seven years vocational training. Strictly sober; honest and reliable and a producer; good manager of help. Make any change in the mill. Can furnish best of references. Address "Box 782," care Textile Bulletin.

POSITION WANTED as Overseer of Weaving; 22 years in weave room; several years as overseer and general overseer. Family. Draft status 4-A. Strictly sober. Age 39. I. C. S. graduate; high school education. Now employed but can come on short notice. Address "R. F. J.," care Textile Bulletin.

Cotton Classer Wanted

By large Southern cotton mill. Must be thoroughly experienced in classing and stapling cotton and capable of further advancement.

Write "B. C.,"
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Must have pleasing personality; energetic, resourceful, to represent company in electrical industry. Should have at least three years jobber's salesman experience. Reply, giving age, experience and references, to

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care Textile Bulletin.

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Foreman for second shift Carding and Spinning. Good opportunity. Steady position and good salary for reliable man.

KAHN COTTON MILLS, INC.
Attalla, Ala.

WANTED

Overseer of good character, 30 to 40 years of age, experienced in carding and spinning on fine numbers and rayon, also well qualified in handling employees. Other qualifications are high school education or better, versatile to changes in processes. References required.

Contact "O. S. C.,"
care Textile Bulletin.

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For medium size mill located in Piedmont Section. Must be thoroughly experienced on narrow fabrics and tapes. Attractive proposition for man capable of assuming full responsibility for manufacturing and figuring costs with assistance of office man. Replies treated confidentially.

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PERSONALS

(Continued from Page 44)—

be filled by Roger Williams, who has been elected a vice-president and director and assumes the duties of advisor on research and development. Dr. Stine retains his positions of vice-president and director.

Two men who are well known in the textile and garment industries, John C. Turrell and Charles Pinnell, are this month observing their 50th year in business. Mr. Pinnell, general sales manager for Merrimack Mfg. Co., which operates a plant at Huntsville, Ala., made his start with Fred Butterfield & Co., and was actively identified with that firm for over 40 years. Mr. Turrell, vice-president in charge of the sanforizing division of Cluett, Peabody & Co., started as office boy with Earl & Wilson; he was a director when that firm was merged with Cluett, Peabody & Co., and continued in his capacity as director in charge of textiles and merchandising.

Mildred G. Barnwell, secretary of the Southern Combed Yarn Spinners Association, was married June 2 to Elmer Frank Andrews at the Covenant Place Presbyterian Church in Washington. Mrs. Andrews has been active for some months in the research and development section of the Office of the Quartermaster General in Washington. Mr. Andrews was the first administrator of the Wage and Hour Law, and at present is engaged in business as consultant on industrial relations. They will make their home in New York after July 1.

Melville F. Weston has been named president of H. & B. American Machine Co. at Pawtucket, R. I., succeeding E. L. Martin, who has been named chairman of the firm's board of directors. Elmer J. McVey has replaced Mr. Weston as vice-president.

Fuller E. Callaway, Jr., president of Callaway Mills, LaGrange, Ga., has been notified of his election as a fellow of the Textile Institute of Manchester, England. This institute is a professional society of more than 2,000 members, founded in 1910 to advance the general interests of the textile industry. Under a royal charter granted in 1925, it has awarded a limited number of fellowships to members holding the appropriate technical and occupational qualifications. The election of Mr. Callaway as a fellow makes him the tenth person now living in the United States to have received this signal honor. In addition to the presidency of Callaway Mills, Mr. Callaway holds the following positions in the U. S. textile industry: chairman of the board, the Cotton-Textile Institute; chairman of the board, Institute of Textile Technology; second vice-president, American Cotton Manufacturers Association; chairman of the board, Callaway Institute, Inc.

Hugh M. Comer has been named board chairman and treasurer of Boaz (Ala.) Mills, Inc. Claude M. Elrod succeeds him as president, Donald Comer becomes vice-president and Leon Brock, secretary.

M. Weldon Rogers, president of the Southern Textile Association, has resigned as general manager of Jackson Mills at Wellford and Iva, S. C., effective July 13, to take charge of research and development for Ely & Walker Dry Goods Co. at St. Louis, Mo.

Eight employees of American Viscose Corp. were presented with the company's Salvage Award medal in New York June 15. The awards, established in 1942, are made annually in recognition of outstanding action or achievement beyond the usual performance of duty. Recipients are W. Edward Dungan, for engineering design of the changes, expansion and new construction at the Front Royal, Va., plant; Chester H. Goodwin, for a new and improved operating method in the manufacture of viscose; Carlton E. Holder and Leonard T. Weaver, improving one of the cellulose acetate manufacturing processes; Mrs. Odrie P. Kidd, for activity as secretary of the Mutual Benefit Association at the Roanoke, Va., plant during the past 20 years; John W. Moody, for a change in the operation of the steeping process and his part in a project for handling pulp bales; Ross M. Pfalzgraff, for organization and direction of the firm's war procurement department and his contribution to the military tire yarn program; and Arthur R. Wachter, for establishing the company's Crown Tested Plan on an improved basis and his contributions to technical developments in finishing rayon fabrics.

Stanley Steel Strapping gives the needed extra protection against the many handlings and "hurry-up" treatment of wartime shipments.

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By land, sea and air, shipments of war materials are protected for safe arrival at overseas destinations by Stanley Steel Strapping.

THE STANLEY WORKS
Steel Strapping Division
New Britain, Conn.

STANLEY

MILL NEWS

(Continued from Page 42)—fourth mill of the group, Victor-Monaghan Co. at Greenville. These four appeals from the direction were the first to be heard under the amended direction which was issued June 1 and which set up a series of detailed considerations relating to machinery and equipment on which either partial or complete exemptions might be issued.

TROUTMAN, N. C.—The Hall-Kale Mfg. Co. plant, operating 12,456 spindles on combed peeler yarns, has been sold for approximately $280,000 to Hampton Mills, Inc. J. Edward Kale of Lincolnton, N. C., president and treasurer of Hall-Kale Mfg. Co., is one of the incorporators of Hampton Mills, which was chartered with an authorized capital of $1,000,000 last month.

GREENSBORO, N. C.—Burlington Mills Corp. has registered with the Securities and Exchange Commission 150,000 shares of preferred stock at $100 par value. Proceeds will be used to repay a three per cent note for $8,000,000 callable at 102.79 per cent plus accrued interest, to redeem 58,602 outstanding shares of five per cent cumulative preferred stock at $108.50 per share, plus accrued dividends. The balance will be added to general funds for corporate purposes.

ERWIN, N. C.—The National War Labor Board has affirmed a directive order of the Fourth Regional WLB at Atlanta which approved extension of an incentive wage system at Erwin Cotton Mills, to jobs and departments not previously covered on the basis that the regional board's action was in accordance with past practice of the parties under the contract. Labor members dissented.

GOLDVILLE, S. C.—Officials of Joanna Textile Mills Co. have applied to the War Production Board for priorities on materials to be used in a contemplated $500,000 expansion program.

MARTINSVILLE, VA.—In order to acquaint the community with the large variety of textile products manufactured in the Marshall Field & Co. mills, the manufacturing division of the company presented a traveling exhibit at the Fieldale Y. M. C. A. The exhibit consisted of articles produced in the various company mills and included blankets, sheets, bedspreads, woolens, rayons, rugs and other items.

GRIFFIN, GA.—Since Pearl Harbor, 12,000,000 olive drab towels have been manufactured for the Army at Dundee Mills, mill officials estimated here recently. The 2,800 Dundee employees are currently producing 640,000 towels a month, using 3,500 bales of cotton. Most of the mills damaged by a tornado the latter part of April have already been returned to full production.

GASTONIA, N. C.—Six plants of Textiles, Inc., have been been awarded the Minute Man Flag, indicating at least 90 per cent participation in payroll deduction in the purchase of war bonds. The six plants achieving the coveted goal are Mutual, Arkray, Winget, Victory, Myers and Cora.

An Announcement

Mr. William Muirhead is now overseas on a special mission at the request of the United States Government. Until such time as this mission is completed and Mr. Muirhead returns to active direction of the affairs of our company, every phase of construction activities will continue vigorously and without interruption under the direction of Mr. Hal S. Crain, Executive Vice-President.

Post-War Construction Plannning

We solicit consultations regarding construction problems involved in post-war new construction and conversion programs with the assurance that you will receive the same efficient, prompt, and specialized service which we have always rendered.

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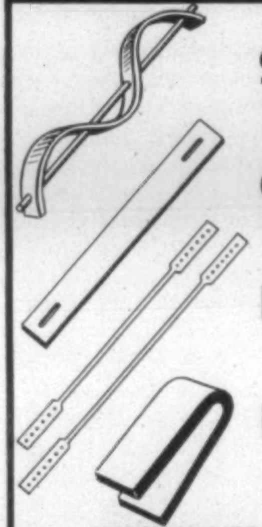

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For Quick Results Use Textile Bulletin Want Ads

Evaporative-Cooling Primer for Textiles

(Continued from Page 30) — windows, solar-refracting glazing, outside shading of windows by awnings, etc.

After the foregoing heat gains have been totaled, we are ready to design a system to cool them.

Direct Systems—The particular locality involved may call for designing against an outside condition of 96° dry-bulb temperature; 75° wet-bulb temperature; 38 per cent relative humidity; 66° dew-point temperature; 37.81 Btu per pound of air total heat; 96 grains of moisture per pound of air.

It is decided under these conditions to maintain within the room 83° dry-bulb temperature; 77.9° wet-bulb temperature; 80 per cent relative humidity; 76° dew-point temperature; 40.54 Btu total heat; 136 grains of moisture per pound of air. Obviously fresh air introduced will pick up 2.73 Btu per pound and dividing this into the total heat load will give the pounds of air per hour to be required.

In like manner, 40 grains of moisture will be picked up per pound of air, and the total evaporation in pounds per hour is equal to pounds of air per hour multiplied by 40 and divided by 7,000.

Instead of giving the inside and outside design conditions mentioned the specifications might read "system to maintain 8° above outside wet-bulb temperature." Although this "8° above" designation does not hold exactly for all conditions, it is reasonably accurate for approximating performance at all outside wet-bulb conditions.

It is obvious also that it costs more to cool to 5° above the outside wet-bulb temperature than it does if one is satisfied to cool to 8° above the outside temperature. Diminishing returns set in to affect this decision and careful consideration should be given before demanding an extra 3° of cooling which requires double the outlay for equipment.

The graph on Page 28 shows the fresh-air requirements in a room using a direct system of evaporative-cooling. A design of 10° above the outside wet-bulb temper-

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THE KEEVER STARCH CO., COLUMBUS, OHIO

ature (82°) would require 42,000 cfm of fresh air. To improve the cooling 2° (80° room temperature) an additional 20,000 cfm of fresh-air capacity would have to be installed with a cost commensurate with the larger equipment needed. To improve the cooling an additional 2° (78° room temperature) a second addition of 57,000 cfm would be needed. It is apparent that management demands for cooling should be governed by the economical point for degrees cooled per dollar expended.

Although not shown, the evaporation requirements increase in approximately the same proportion as the air requirements, and the graph assumes that equivalent evaporation is provided.

Indirect System—In the indirect system the cooling effect is fixed by the difference between the dew-point temperature and the dry-bulb temperature at the established room relative humidity. Therefore, the same latitude in selection of size of system or degrees of cooling is not permissible.

In conclusion, the point can be stressed that many now operating "direct" humidifying systems can be more fully utilized for evaporative-cooling and lower temperatures by: (1) installing controlled fresh-air supply by means of unit ventilators or duct systems, which may or may not involve increasing evaporative capacity of the humidifying system now installed; (2) increasing present evaporative capacity to allow full use of "natural ventilation" in such buildings as monitor types, etc., where ventilation is normally of a high order; (3) checking present humidity controls to see that the proper relative humidity is being maintained.

Spray-producing equipment should be regularly cleaned in both types of systems in order to maintain maximum capacity. If heat loads have been increased in a long-installed indirect system resulting in low relative humidities, correction may be effected by adding direct evaporative capacity within the room.

48-Hour Week Authority Delegated

Permissive authority to retain or revoke the 48-hour work week in 28 areas in which by regulation it had originally been made mandatory was delegated recently to the War Manpower Commission regional directors by Paul V. McNutt, WMC chairman. Mr. McNutt explained that his action is a formality that placed the 28 areas involved on the same basis as all other areas in the country insofar as authority of regional manpower directors to retain or revoke the 48-hour work week is concerned.

In instituting the 48-hour work week in areas where manpower shortages were acute in February, 1943, Mr. McNutt originally designated certain areas as subject to the regulation and simultaneously authorized the regional directors to apply or rescind the regulation in additional areas. Under this amendment, the regional director's authority is extended to include retention or rescission of the 48-hour work week in the 28 areas previously designated by the chairman, as is true of all other labor market areas.

The amendment, which appears in the Federal Register, provides that regional manpower directors may rescind the 48-hour work week in the 28 areas upon a finding that its continuance is no longer necessary to alleviate labor shortages that are impeding the war effort.

Among the 28 areas involved in this amendment are Baltimore, Md., Charleston, S. C., Hampton Roads, Va., Macon, Ga., Mobile, Ala., and Pascagoula, Miss.

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Strapped pallet loads of truck wheel rims and springs

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Acme engineering is cooperating with the Armed Forces in pallet loading, effecting the same economies for war-time shipping as applied in the past to the movement and handling of peace-time production.

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Cotton Goods Market

To offset the critical shortage of work clothing needed for essential workers in war and war supporting industries, looms weaving denims and other work clothing fabrics previous to their conversion to cotton duck substitutes Sept. 13, 1944, must revert to the production of work clothing fabrics, the War Production Board has announced. They may, however, continue until July 21, 1945, to produce the designated cotton duck substitutes to fill contracts with the Army or Navy. This action was taken by amendment to Direction 2 to Limitation Order L-99 (Conversion of Looms to Production of Tentage Fabrics).

Materials to be produced on these converted looms, which will soon be available for production of work clothing are: denims; pin stripes, pin checks, express checks, hickory stripes; cottonades and suiting coverts; whipcords and bedford cords. WPB said that arrangements have been worked out with the Army to accept the reduced production of cotton duck substitutes, tent twills and flat duck, as an aid in eliminating the work clothes shortage. This does not mean, WPB emphasized, that the Army has cut back or relaxed its requirements for cotton duck or duck substitutes.

Under the amended direction, after July 21, 1945, mills who desire to produce cotton duck substitutes, of the constructions specified under Group No. 74 of the direction, to meet scheduled requirements of the armed services and for essential civilian purposes, must make written application to WPB for such permission at least 15 days before the beginning of any calendar quarter. If the total applications are for the production of yardage in excess of scheduled requirements, individual applications will be granted on a pro rata basis, WPB stated. Unless otherwise authorized in writing by WPB, producers must, after July 21, 1945, meet the minimum linear yardage production as required by L-99 prior to the issuance of Direction 2 to that order.

Considerable quantities of gray goods have been accumulating as the Worth Street market continued in its generally withdrawn position, anticipating either an open pricing clause or revision of existing price ceilings. One report that has been receiving wide attention in the market is that cloth ceilings would be given a general four per cent increase. It was widely agreed that when some action is taken, there will be considerable amounts of goods let out.

The statement of OPA Administrator Chester Bowles that he is altering the agency's cotton pricing policy has resulted in the already restricted gray goods activity coming to an almost complete halt, it is reported. With price revisions expected soon by some Worth Street merchants, not even seconds and shorts are being released.

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Cotton Yarns Market

Sale yarn houses, after analyzing inside reports on forthcoming cutbacks in government requirements in the third quarter, are inclined to predict that the present shortages in civilian goods can be ended by the close of 1945. The Navy stated it will reduce its cotton program by from 60 to 90 per cent, while the Army, though it is reported to have made up its mind to reduce third-quarter buying substantially, is not letting on that it has. The trade hears the Army is caught up on actual needs and is building up its stockpile.

To date there has been no indication that the freeze on 20s and coarser yarns will be extended beyond June 30, and it is predicted here that there will be no extension, meaning another supply of yarns for civilians. Meanwhile, the entire range of yarns is being sought, but with high priority holders dominating the buying.

The Census Bureau has reported that bales of cotton lint consumed during May totaled 830,568, compared with 769,678 during April of this year. Cotton lint consumed during the ten months ending May 31 totaled 8,116,679 bales, compared with 8,414,145 in the corresponding period a year previously.

Cotton spindles active during May totaled 22,167,678, compared with 22,158,674 during April of this year and 22,384,988 during May of 1944; in cotton-growing states, 17,296,590, compared with 17,330,022 in April this year and 17,345,162 in May last year; in the New England states 4,336,064, compared with 4,297,364 and 4,481,624.

Unfilled orders of some sale yarn spinners are down to four weeks, it is reported, but their inventories are estimated as about double those they carried into the second quarter. It is explained this trend began in May and if continued these mills will enter the third quarter with stock equivalent to about one week's deliveries at the present rate.

Another explanation is that while present yarn mill stocks may be larger than on April 30, the increase in actual weight of yarn is not important and may consist chiefly of kinds and counts not now being sought, either for war or civilian uses. Some observers point out that unwillingness of many spinners to book business for more than four to six weeks' deliveries is more significant, the assumption being that part of July-August production not yet sold is being retained on the prospect that price restrictions may be liberalized.

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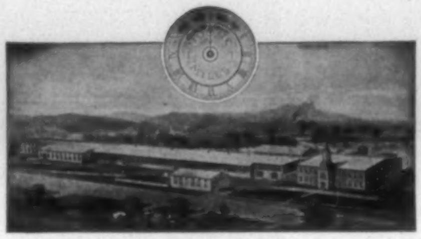

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Finished Goods and Informative Test Reports

(Continued from Page 34)—diazotizing and developing operation. There are many inexpensive direct blues, browns, reds, maroons and blacks which are not affected, and these can be dyed in with the acetate color to be developed, thus saving an extra dyebath to dye the viscose rayon or cotton later.

In dyeing goods containing wool and casein fiber it is best to have these fibers in the dyeing, diazotizing and developing bath in order to obtain full facts on how the direct dyed wool and casein fibers stand up to the diazotizing and developing operations.

Dyers must know whether colors can be stripped (discharged) before they adopt them for regular plant use. All dyeing and finishing plants have "re-work" goods to strip and redye. The question has been put to many dyestuff and resin makers as to the effect on the dischargeability of a direct color when it is resin treated (urea formaldehyde and melamine). A plant chemist can select the range of direct colors used on rayon and casein fiber goods, dye them, then treat a portion with the resin, cure thoroughly and then run by standard stripping methods. Results show on many colors that there is a stain remaining on the resin treated goods, whereas a direct color may discharge or strip clean if not resin treated. In some cases a dyer can use anthraquinone paste in stripping, and obtain a clean strip.

The dischargeability of acetate colors on viscose rayon and casein fibers before and after resin treatment is another problem. The same type of resin treatment should be made on the goods dyed and then resin treated. Using the standard stripping methods, the results on a complete range of direct dyeing acetate colors do not show any noticeable change on the dischargeability of dyed goods untreated and resin treated acetate and casein fiber blended goods. This lack of difference from results noted on viscose rayon and casein fiber goods may be partially explain by the fact that resin treatment does not affect acetate colors as it does the direct rayon and cotton colors.

Whitin Returning to Regular Operations

Whitin Machine Works' first issue of the *Whitin Review* since June, 1943, was distributed to the textile industry this month. The 24-page publication features interesting articles about Stanley (N. C.) Mills, Inc., Whitin's 40-inch full roller card, foundry operations at the firm's main shops in Whitinsville, Mass., and several short items of a technical nature.

A statement by E. Kent Swift, president, points out that Whitin Machine Works has now been directed to return to its regular business of supplying textile machinery and parts after three years of producing machinery for the armed forces. "All of our products," says Mr. Swift, "are going out under priorities and this will continue until the needs are filled. We are operating, like all other industries, under governmental control. We would like to call our souls our own, but cannot do so under the stress of these wartime conditions. The demand for textile machinery is large and widespread. Our many friends and customers are asking us for deliveries, or promises of deliveries. We wish we could advise them as to what we can do, but we cannot in view of the above conditions. We are endeavoring to service the textile industry to the best of our ability and will do so in

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spite of the fact that we are faced with every kind of manufacturing difficulty — shortage of purchased parts, manpower, etc., as well as schedule changes to conform with priority regulations. So [we] ask our friends to bear with us as best they can until we reach that happy period when governmental and bureaucratic controls can be lifted. We are, however, converting back to textile machinery as rapidly as possible and will be ready to go, in all of our lines, when this happy period arrives. We look forward, hopefully, to a great period of prosperity in the textile industry."

Mills Must Accept Any Rated Order

The appeals board of the War Production Board ruled June 13, on an appeal made by Spofford Cotton Mills, Wilmington, N. C., and Springs Cotton Mills, Lancaster, S. C., that a cotton mill may not refuse a high-rated priority served on it for fabric, even though the priority is served by a competitor who intends to sell or finish the fabric in competition with the weaver, without being in violation of Priority Regulation No. 1. The two Southern mills had appealed from AA-1 priority ratings served on them by M. Lowenstein & Sons, Inc., New York City, and Classic Mills, Inc., a subsidiary of the Lowenstein firm.

The appeals had previously been denied by the appeals branch of the textile bureau on the same grounds. The decision is of great interest in the cotton goods industry since it has been reported that a number of similar cases are pending, awaiting the outcome of the Spofford and Springs appeals. The AA-1 priority was served on Springs Cotton Mills in a letter dated March 28, 1945, to cover 220,000 yards of 37-inch 112x60 broadcloth in gray. The Springs mill appealed from the necessity of accepting this priority on April 6, and the Spofford mill followed suit on April 10.

Machinery Builders Given Urgency Rating

Textile machinery has been placed on the national production urgency list, War Production Board officials reported this month. The action is limited to producers of critical textile machinery and maintenance, repair and operating equipment and supplies "to the extent necessary to insure delivery on schedule of rated orders," according to WPB's production executive committee. Urgency ratings are used to obtain additional workers. The makers of textile machinery to whom the rating applies are assured of manpower assistance equal to that given the producers of the urgent war weapons.

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Always uniform, always superior, Dary Ring Travelers are at work today in many of America's top textile mills, both north and south.

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Textile Cutbacks Remain Uncertain Question

The question of what, if any, cutbacks will be permitted the textile industry in the third and fourth quarters of this year remain uncertain in the face of conflicting reports from the War Production Board. Although both the Army and the Navy have indicated that they will have less textile needs during the latter half of the year, J. A. Krug, chairman of WPB, stated recently: "Military requirements for cotton textiles for the third quarter of 1945, on a one-front war basis, are at new record highs, above the level that the textile industry has been supplying for a two-front war, and requirements for wool textiles and knit goods remain high."

Another high WPB official said that over-all cutbacks in military textile orders are expected to begin during the fourth quarter. Some slight cutbacks have occurred in specific construction and others are expected in the near future, this official said. The looms released have, however, immediately been occupied with other war orders so that there has been no relief for civilians.

Meanwhile, as an aid to resumption of civilian production in the cotton textile, woolen and worsted industries, WPB has issued a schedule of recommendations on stop-work points (or stages) up to which fabrication or processing under a government contract can be carried in the event such contract is terminated. The recommendations were made by WPB to the Office of Contract Settlement as an aid to manufacturers so that they may know in advance of government contract terminations the specific points to which their production under the contract may be carried. The halting of processing or fabrication at these stop-work points act as an aid in the rapid reconversion of these industries, since it makes possible the most efficient and expeditious clearing of machines, thus reducing possible loss of materials or damage to machinery, WPB said. In presenting the suggested stop-work points to OCS, the war production agency said that they were also offered as a guide for all contracting agencies, adding that war contractors may find incorporation of such points in pre-termination agreements helpful.

Deliveries of Wool Blankets Frozen

The War Production Board has reported that all deliveries of wool blankets and blanketing made from yarns produced between June 17 and Sept. 1, 1945, have been frozen to rated orders. During the same period, manufacturers of wool blanket and blanketing are required to produce at least the same proportion of wool blankets and blanketing as they produced in the first quarter of 1945. "Wool blankets and blanketing" is defined to mean those having a wool fiber content of 25 per cent or more by weight. This action was taken by issuance of Direction 4 to Conservation Order M-73 (freezing production of wool blankets). Recommendation that this step be taken as the most expedient means of insuring procurement of heavy military requirements for wool blankets in the third quarter of 1945, was made by the task group of the blanket industry advisory committee, WPB said.

Under the direction, exceptions were made for the most part affecting the manufacture of wool blankets and blanketing for hospitals, hotels and similar institutional users. Such exceptions to the order will generally be granted only to persons who, since Jan. 1, 1943, have sold blankets or blanketing directly to or for the use of such orders.

Net Worth Price Formula Is Condemned

Members of the House Banking Committee heard a vigorous denunciation of the Office of Price Administration's textile pricing policy June 12 when George M. Wright, president of Republic Cotton Mills, Great Falls, S. C., appeared before the committee on behalf of the American Cotton Manufacturers Association, of which he is a member of the board of governors. Mr. Wright's condemnation was especially significant in view of the fact that he is a member of several OPA industry advisory committees and of the special cotton textile committee which has for several months been negotiating for an increase in the ceilings of cotton textiles.

The South Carolinian declared that OPA's cotton textile pricing policy has forced cotton mills into finishing, converting, and other lines of the cotton business alien to their normal business of producing gray goods, thus contravening Section 2 (H) of the Stabilization Extension Act, which states that no powers of the administrator shall be used to compel a change in business practices. This, Mr. Wright averred, is part of the explanation of the enormous profits which Chester Bowles has charged the cotton textile industry with making. Most of the remaining profits made by cotton textile mills during the war period have been due to fortunate cotton purchases, he said, adding that Mr. Bowles' figures were swollen by the inclusion of profits made by the rayon mills.

Mr. Wright declared that OPA's policy of pricing cotton fabrics at the mill "is an attempt to cover up bungling in the handling of prices at the retail level." Retailers and garment manufacturers have been allowed to get away with exorbitant prices, he declared. Becoming more vehement, Mr. Wright exclaimed that the net worth formula is the "most damnable, vicious thing that ever came out of a government agency. It should be outlawed!"

OPA Allows Bobbin Price Increase

An increase in manufacturers' ceiling prices for textile bobbins and spools made principally of wood has been announced by the Office of Price Administration.

Effective June 15, 1945, ceiling prices for these items are established as follows: for American Bobbin Co. at Lewiston, Me., Bowen-Hunter Bobbin Co. at East Corinth, Vt., Jackman Co. at East Corinth, Monticello (Ga.) Bobbin Co., and Walter L. Parker Bobbin & Spool Co. at Lowell, Mass., 124 per cent of the net price the individual manufacturer had in effect to a purchaser of the same class on Oct. 1, 1941; for James H. Billington Co. at Philadelphia, Pa., Dana S. Courtney Co. at Chicopee, Mass., and New England Bobbin & Shuttle Co. at Nashua, N. H., 120 per cent of the individual manufacturer's Oct. 1, 1941, net price; for all other manufacturers, 118 per cent of Oct. 1, 1941, prices.

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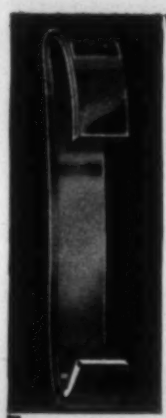

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Send your exact requirements for samples which you can use and prove in your own mill. Write direct, or to the nearest representative.

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MATTHEWS EQUIPMENT CO., 93-A Broadway, Providence, R. I.

Possibilities of Increasing Card Production

(Continued from Page 25)—pounds per hour. (See Table I-A and Fig. 5.)

When the flow of cotton through the card was increased, production was improved up to 60 per cent without significant loss in yarn strength, with a decrease in waste, and with yarn appearance drops of not more than two-thirds of a grade (usually not more than one-third of a grade). Although there is an increase in the rate of power usage, there is a net lowering of the horsepower per pound of cotton carded accompanying this production increase. This was demonstrated with the one-inch strong-fibered cotton as follows: (a) a production increase of 60 per cent (from 12.1 to 19.3 pounds per hour) was obtained by increasing doffer speeds from 10 to 16 r.p.m. With a cylinder speed of 165 r.p.m. the yarn appearance grade dropped from A— to B, but with a cylinder speed of 195 r.p.m. the grade remained at B+. In both instances waste decreased—See Table I-B; (b) a production increase of 40 per cent (from 12.1 to 16.9 pounds per hour) was obtained by increasing sliver weight from 50 to 70 grains per yard. For this change, yarn appearance grade dropped from A— to B+, and waste remained the same—See Table I-D; (c) a production increase of 13 per cent (12.1 to 13.6 pounds per hour) was obtained by increasing the lap weight from 15 to 17 ounces per yard. With a cylinder speed of 165 r.p.m. the yarn appearance grade dropped from A— to B+, but with a speed of 105 the grade remained unchanged at B+. There was no change in waste—See Table I-C.

Textile Machinery Builder Optimistic

Prosperous times loom in the post-war period for textile machinery manufacturers, in the opinion of Edward L. Martin, president of H & B American Machinery Co., Pawtucket, R. I. The war, he stated in a recent interview, has brought about an almost unbelievable need for textile machinery to replace that worn out by the fast war-time production tempo and to re-equip plants in many parts of the world that were bombed out of existence during the conflict. The great need for clothing in this and other countries assures the mills top speed operation to fill the needs that have been piling up while the war has been going on, he declared.

The number of spindles in operation when America entered the war was approximately 25,000,000, Mr. Martin said. The machinery replacement rate was so low that it would have required 60 years to effect the replacement of the then existing textile mill equipment, he asserted. But the end of the war in Germany, he said, had found an unprecedented demand for textile machinery, the magnitude of which can readily be understood when it is realized that China alone stands in need of a million spindles. Mr. Martin further justified his optimistic outlook with these remarks:

"The world demand for textile machinery is estimated to be approximately 7,000,000 spindles, involving the spending of about $280,000,000 for mill equipment. So it appears that there are at least five years of prosperous times ahead for textile machinery manufacturers. The big problem is not reconversion, but manpower. We personally would like to double our working force of 565 persons. Although H & B's war contracts were completed June 30 of last year with the exception of a few odds and ends, and despite the fact that no reconversion problem had to be solved, the plant is producing only 25 to 30 per cent of what it could be turning out if we had sufficient manpower. It is a case of having it rain soup and being caught with a fork. The demand is not only in foreign lands; the domestic needs will surpass all records."

In conclusion Mr. Martin exemplified the production possibilities at the present time with the statement: "We have potential orders for $5,000,000 worth of our product today."

Rayon Yarns Get Better Price Treatment

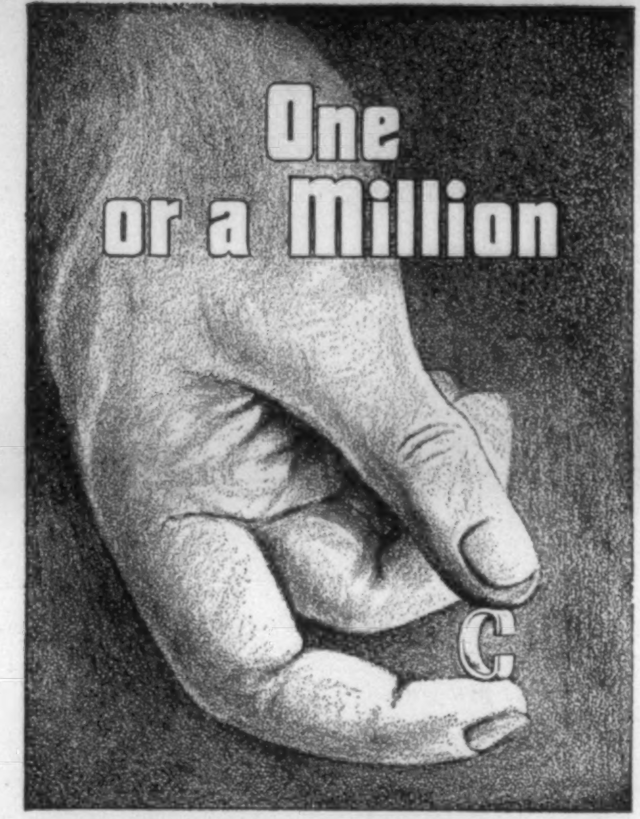
High tenacity rayon yarn produced on equipment built or converted after March 31, 1945, to carry out a War Production Board direction, will be exempt from price control when sold to or purchased from the Defense Supplies Corp., the Office of Price Administration has announced. The action, effective May 25, will permit the Defense Supplies Corp. to pay producers a negotiated price covering production and conversion costs plus a profit, OPA said. The action applies to an estimated seven per cent of the total 1945 production of high tenacity rayon yarn.

The exemption was decided upon by OPA as the only alternative after WPB pointed out that existing facilities for producing high tenacity rayon yarn were inadequate to meet wartime requirements, and that WPB could not "compel the necessary conversions and additions, involving as they will substantial financial expenditures." To obtain the extra yarn needed, some producers will have to build new plants or convert additional equipment at considerable expense to themselves. Under OPA's adjustment provisions for rayon yarns, any price increase granted to these producers would have been limited to total production costs. The producers involved had expressed their unwillingness to proceed with conversion and new instructions unless they obtained a more favorable price.

Under the exemption plan, the Defense Supplies Corp. will buy the yarn at a price determined by negotiation, and sell it, without profit, chiefly to war procurement agencies. Since the yarn will be used in heavy duty tires and fuel cells for the armed forces, and in heavy duty tires for essential civilian purposes, its exemption from price control will not affect consumers, OPA said. An earlier amendment permitted all producers of high tenacity rayon yarn to obtain price increases up to total costs for yarn produced on newly constructed or converted equipment under WPB direction. As a result of this amendment, several companies are expected to have prices higher than the current 43-cents-a-pound ceiling for all or part of their output. This means that some buyers of high tenacity rayon yarn will be in a less favorable position than others, OPA said.

Liquid Belt Dressing Is Perfected

Graton & Knight Co. research laboratories at Worcester, Mass., have announced the development of a new formula liquid belt dressing. Although the new product will be merchandised under the familiar "Grako" trade name, it is said to be a distinctly new, superior liquid dressing. According to the manufacturer, repeated tests with the new Grako show an improvement of 15 to 20 per cent increase in transmission from rating upwards, with a greater percentage rise for belts which are pulling under their rating, and, moreover, produces an instantaneous power rise.



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May Rayon Shipments Reflect Increase

Domestic rayon shipments during May amounted to 65,300,000 pounds against 62,400,000 pounds in April, an increase of 4.6 per cent. Of this quantity, filament yarn deliveries were 51,500,000 pounds while staple fiber shipments totaled 13,800,000 pounds. Corresponding April figures showed 48,800,000 pounds of yarn and 13,600,000 pounds of staple delivered. During the first five months of the year, 246,600,000 pounds of yarn and 68,300,000 pounds of staple, or a total of 314,900,000 pounds of rayon, were shipped to domestic consumers. In the same 1944 period, 287,300,000 pounds of rayon were delivered, of which filament yarn amounted to 219,000,000 pounds and staple fiber 68,300,000 pounds.

Rayon stocks on May 31 aggregated 8,600,000 pounds, the lowest point this year, against April month-end stocks of 8,800,000 pounds. The stock position at the end of May showed yarn at 5,900,000 pounds and staple at 2,700,000 pounds, with April data showing 6,100,000 pounds and 2,700,000 pounds, respectively.

Duplan Corp. Division Headquarters Moved

Division headquarters in North and South Carolina for Duplan Corp. have been moved from Charlotte to Greensboro, N. C., and offices have been set up in the Guilford Bldg. with Nettleton P. Murphy in charge. Throwsters of nylon, rayon and combination yarns, the corporation division headquarters were located in Charlotte for 20 years before being moved to Greensboro to effect what was described by Mr. Murphy as a more centralized location for the Southern division. Since the war most of the company's contracts deal with processing nylon and other materials to be used in essential war materials. Plants of the corporation are located in Pennsylvania at Hazelton, Kingston, Nanticoke and Berwick, and also in Grottoes, Va., and Winston-Salem, N. C.

Textile Standards Revisions Submitted

Proposed revisions of standard textile tests for the American Society for Testing Materials have been submitted to members of subcommittee B-4 on bleaching, dyeing and finishing, as prepared by committee D-13 of the society, according to J. Robert Bonnar of General Dyestuff Corp., chairman of B-4. The revised standards include method of test for color fastness of colored textiles to light; method of test for resistance of textile fabrics and yarns to insect pests; methods of test for evaluating compounds designed to increase resistance of fabrics and yarns to insect pests; method of test for color fastness to commercial laundering and to domestic washing of cotton and linen textiles.

The method of testing fastness to light has been extended to include the new dyeings of the American Association of Textile Chemists and Colorists and an explanation of their

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use to show satisfactory operation of a fading machine. Size of specimens in the resistance to insects test method has been changed from one to two square inches for fabrics and one to one and one-half square inches for yarn, and the fabric loss method has been added. A procedure for rearing and handling webbing clothes moths has also been added.

Many Textile Workers To Get Raise

An estimated 350,000 to 400,000 Southern workers will receive wage increases of at least five cents an hour as the result of approval June 11 by the Fourth Regional War Labor Board, in Atlanta, Ga., of voluntary applications for wage adjustment covering 321 Southeastern textile firms, according to M. T. Van Hecke, chairman of the board. The regional WLB immediately began processing requests from 100 additional mills.

All 321 textile applicants requested authority to grant a five-cent, across-the-board wage increase to all production employees; 75 per cent requested permission to establish a 55-cent minimum wage, and at least 50 per cent requested authority to pay a five-cent third shift differential. A number of mills also requested authority to institute a paid vacation plan, although the majority indicated they had some vacation program already in effect.

Meanwhile the executive council of the Textile Workers Union, in quarterly session in Atlantic City at the same time the regional WLB approved the raises for workers in the 321 mills, advocated lifting the minimum wage to 65 cents an hour. In support of this latest demand, members of the executive council stated that WLB panels had supported their contention that a worker with a wife and two children needed at least 72 cents per hour to maintain, during wartime, the same standard of living that a mill worker had in 1935. The resolution passed by the council called on Congress to amend the fair Labor Standards Act to put a 65-cent floor under all wages. The council also formulated the union's program for employment of war veterans and voted to appoint a national director of veterans' affairs.

Life jackets and life preservers used by the armed forces and Merchant Marine will soon be packed with a new fibrous glass material as the 10,000,000-pound stockpile of kapok, and substitutes such as milkweed fiber and Ecuador kapok threatens to become depleted by the end of this year.

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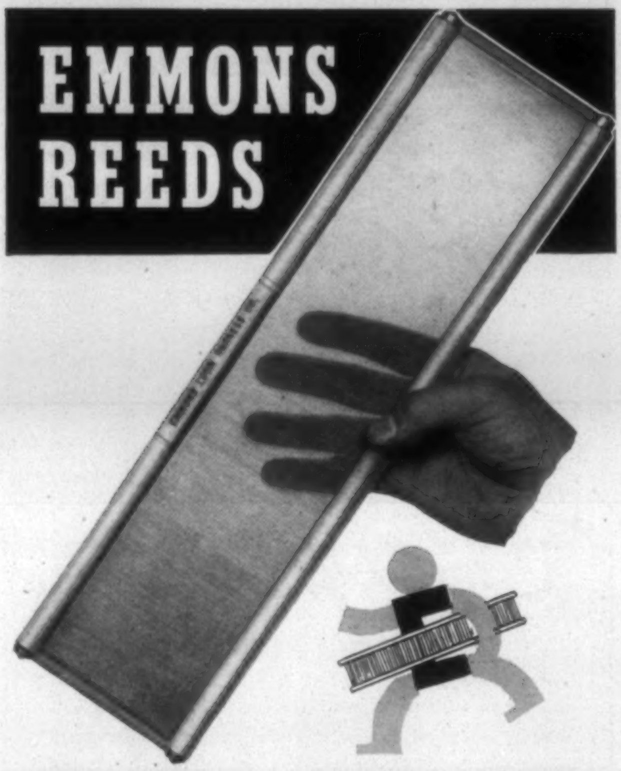

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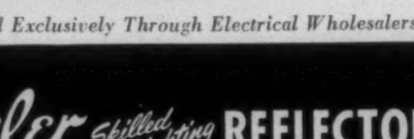

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New Motor Design Helpful To Mills

A new feature in electric motor design, the pre-lubricated sealed ball bearing, has been applied by Westinghouse engineers to eliminate the necessity for greasing except at intervals of five years or longer. This new bearing consists of the standard single row of balls mounted in races of the same width as the double row ball bearings. Metal shields are anchored solidly in the outer race near the outer edges and extend down and inward to a close running clearance from the inner race. Adequate space for grease is thus provided and at the same time there are highly effective seals against the leakage of grease or the entrance of dirt.

This construction is said to give several operating advantages: the tightly-sealed enclosure reduces oxidation of the grease, thus promoting longer grease life; maintenance expense is sharply reduced as frequent greasing is not required; grease is kept in and dirt is kept out; when motors are disassembled the bearings, being enclosed in a cartridge, are protected against dirt. Furthermore, the always present hazard of overgreasing and the consequent grease seepage into windings is eliminated.

Since 1939, thousands of lint free induction motors incorporating this feature have been installed throughout the textile industry. These have operated from three to six years, running 24 hours per day at higher room temperatures and at higher humidity than is encountered in most industrial applications. Their success has been outstanding. A few months ago, engineers inspected a large number of these bearings chosen at random from about 600 motors installed in six different Southern cotton mills, all of which had operated at least four years, 24 hours a day, and none of which had ever been regreased. None showed any signs of wear and the grease was in good condition; all were reinstalled with the recommendation that they be run for another three-year period before being relubricated.

War Record of Mills Is Praised

Col. Thomas W. Jones, head of the newly established Quartermaster Purchasing Office in New York City, gave great praise to the war record of the nation's cotton mills when a testimonial dinner was held in his honor in New York May 18. Colonel Jones informed the approximately 1,200 textile executives who attended the dinner that during the war period the mills have delivered to the Philadelphia depot 3,000,000,000 square yards of cotton cloth, exclusive of duck or webbing, to be used primarily for clothing for the Army.

"Our cotton mill men have a story of accomplishment that few of them prior to the war would have thought possible," Colonel Jones stated. "They have a story of being requested by the Quartermaster Corps to change their looms back and forth between herringbone twill, uniform twill and nine-ounce sateens several times throughout the course of this war. Each change involved terrific effort on the

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part of management and labor. Each was essential and had to be made in great haste. Headaches involved in getting enough duck for the Army is a well-known story and the job done by the regular duck mills, and those such as the carpet mills which converted to duck production, is one of the most outstanding in textile history.

"The great finishing plants that served this industry have had untold misery and difficulty in so successfully changing and drafting their facilities to meet our varied needs for dyeing and finishing. This branch of the industry has been most co-operative and helpful despite the trying conditions under which it has labored for so long.

"The woolen garment industry has performed its full share of production miracles. This has been especially true in recent months. Our need for quantities of warm clothing in Europe has been great during the past six months and those shops making field packets, overcoats, wool trousers, and flannel shirts have done an outstanding job of giving us millions of units. Of course, in order to get these uniforms for cold weather, we had to first have the woolen and worsted cloth. Our great mills in this branch of the textile industry have served especially well. They have worked with us 100 per cent and the results of their efforts have been most remarkable. These mills have given their Army nearly 475,000,000 linear yards of life-saving cloth and they have given many millions more to our Allied armies under war-aid agreements.

"I also would like to pay tribute to those many millions who have supplied cotton, woolen and worsted yarns to our prime contractors for all types of cloth and for our many knitted items. These yarn supplies are an integral part of our tremendous war production machine and they have done their work extremely well and with little recognition."

In conclusion, Colonel Jones brought to the attention of his listeners the necessity for continued peak textile production.

Open-End V-Belting Described

A new catalog section on its line of open-end V-belting has just been published by B. F. Goodrich Co. of Akron, Ohio, and is now available upon request. The catalog section points out that open-end V-belting helps insure efficiency and economy on many drives where use of endless V-belts is not practical. Line shaft and other similar drives can be utilized by using this type belting and fasteners.

Rules for successful application of open-end V-belting are given, including the method to determine pitch length, allowances for fastener length and for tension. Limitations of this type installation are outlined, and the fasteners described. The company recently announced that "A" section open-end V-belt is now being manufactured, following the development of a new fastener which will adequately handle this type installation. "B," "C" and "D" sections had previously been manufactured.

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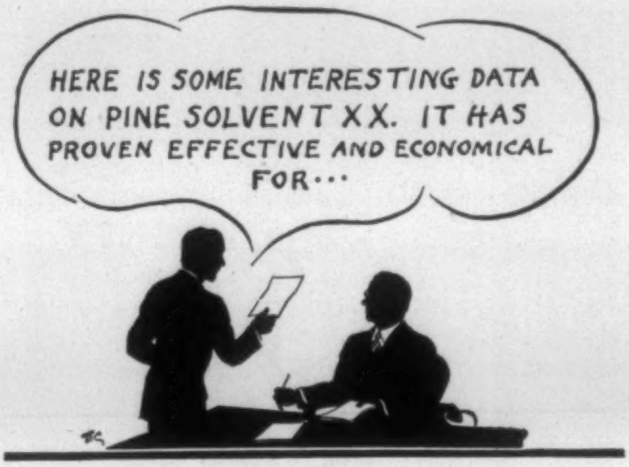
HERE IS SOME INTERESTING DATA ON PINE SOLVENT XX. IT HAS PROVEN EFFECTIVE AND ECONOMICAL FOR...

COTTON: In the kier, Pine Solvent XX brings the liquor in contact with every fiber, leaves uniform bottoms that dye and finish more evenly. Boiling time is cut. Fibers are softer, fuller, more resistant to age-discoloration.

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RAYON: In boiling off, Pine Solvent XX rapidly emulsifies gelatinous materials . . . is safe for the most delicate fabrics. Used in dyeing, it makes the fabrics wet out and sink quickly.

DYEING: Pine Solvent XX makes dye liquor penetrate the hardest fibers and heaviest seams. It gives an even, level deposit of dyestuff of uniform depth throughout every fiber. Loose dyestuff and impurities are suspended for washing out completely.

PRINTING: In printing paste, Pine Solvent XX wets pigments thoroughly, disperses them evenly, and holds them in suspension without agglomeration until the design is on the fabric. Designs are sharp, colors bright and clear, no specks are formed.

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Burk-Schier Pine Solvent XX Reduces Surface and Interfacial Tensions . . . Wets, Penetrates, Suspends, Disperses . . . Aids Detergents and Dyes. A Little Does a Lot and Does It Well.

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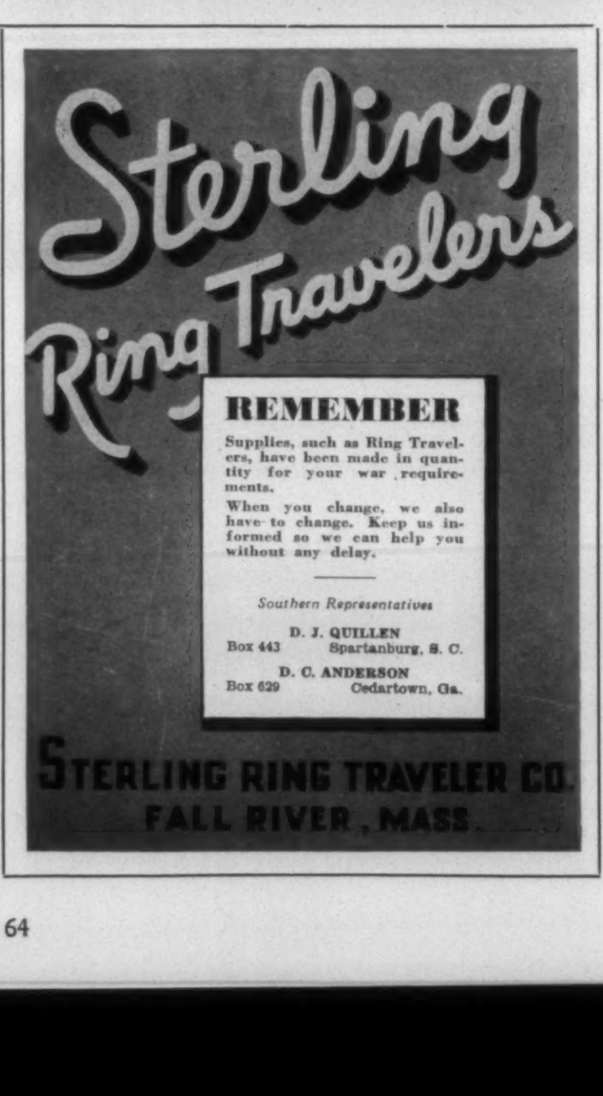

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OBITUARY

Leroy L. Chandler, 64, former overseer of spinning at Borden Mills, Inc., Kingsport, Tenn., died recently at Greenville, S. C., following several years of declining health. He is survived by his wife, three sons, four daughters and two sisters.

J. Parker Highsmith, Jr., 43, manager of the Chicago divisional sales office of Bibb Mfg. Co., died suddenly in Chicago June 3. He had been associated with the company more than 20 years. Survivors include his wife, mother, four brothers, a sister and three sons.

Charles E. Estes, 64, one of the partners and manager of Montgomery (Ala.) Cotton Mills, died June 6 at New Orleans, La., following an illness of several months.

Lucian B. Knox, 54, for 23 years master mechanic of the Eureka plant of Springs Cotton Mills at Chester, S. C., until his resignation last year, died May 17 at Chester. He is survived by his wife, two sons, two grandchildren, three sisters and one brother.

Albert B. Clark, 53, former president of Charlotte Supply Co., died this month after a lengthy illness. He had retired in 1942 because of ill health. His wife survives.

Lieut. Harry L. Derby, Jr., 38, was killed in action recently while serving as a Naval Reserve officer in the Pacific. Before volunteering for duty in 1942 Lieutenant Derby was Western sales manager for American Cyanamid & Chemical Corp. at Chicago. Besides his parents, Mr. and Mrs. H. L. Derby of Montclair, N. J., he is survived by his wife, two daughters and a son.

Emmett G. Jessee, for 18 years superintendent of Watts Mills at Laurens, S. C., died this month in a hospital there.

Grover P. Pruitt, general superintendent of Dunean Mills at Greenville, S. C., died this month following a ten-day illness. He had been associated with Dunean 21 years. Funeral services were held June 15.

F. E. Busby, 70, former head of the chemistry, dyeing and finishing department at New Bedford (Mass.) Textile School, died this month. Prior to his retirement four years ago he had been a member of the school's faculty for 22 years. Funeral services were held June 15.

Emil J. Stehli, 76, chairman and former president of United States Testing Co., died May 21 in New York after a short illness. His entire career, both in this country and his native Switzerland, was spent in the textile field. Survivors include his widow, a daughter and a son.

C. Walter Spalding, manager of power transmission machinery for the Link-Belt Co., died suddenly May 25 at Chicago. He is survived by his widow, a son and a daughter.

New Kind of Plastic Upholstery Developed

An extensive new line of plastic upholstery material for civilian use which is both waterproof and flameproof has been announced by United States Rubber Co. Known as Naugahyde, it will be made in a wide range of light and bright, clear decorative colors and even two-tone effects as well as in a variety of grains. This new type of material is waterproof and unharmed by exposure, company officials state. It will not be affected by perspiration, salt water, alcohol, gasoline, oils, greases, most acids and alkalis and can be cleaned with soap and water. Other advantages are that it will not get hard or crack and will resist edge-wear, abrasion, scuffing, flexing and wrinkling.

Over a million yards have been made for war and tested in severe military applications, officials of the rubber company state. In January, 1943, this upholstery was adopted by the Navy as mandatory equipment for all Navy combat ships. It is used for seating in all types of motorized war equipment, including combat tanks, trucks and jeeps. In bombers, fighters and transport planes, it is used for turret lining and wall lining as well as seat covering.

Policy On Veterans Outlined By Viscose

American Viscose Corp. has announced that in making employment available to its returning veterans it is the company's wish and intention not only to reinstate them in compliance with all provisions of any existing regulations now in effect for their benefit, but also to do whatever else may be in its power to help them become readjusted to normal civilian living.

The company has worked out a number of policies and procedures for the re-employment of returning veterans, in conjunction with national officers of the Textile Workers Union of America. On the subject of wages the company states: "Reinstated veterans who, at the time of entry into the military service, were on a starting or intermediate step-rate and who resume their former jobs, shall accumulate time credit while in service and shall return at the rate they would have obtained if they had worked continuously for the company." Where a returning veteran is unable to perform duties of his former job, the company will make every reasonable effort to place him in a job of like seniority, status and pay through job training and physical rehabilitation. The company also is exploring the possibility of establishing special departments for the production of items needed in rayon manufacture, where physically handicapped veterans can do work of a productive nature.

Over 30 per cent of those rescued at sea in the war owe their lives to the lifejacket "dye marker," a waterproof bag full of Uranine, the sodium salt of fluorescein, manufactured by the Calco Chemical Division of the American Cyanamid Co., according to figures released by the company.

The Bristol Co. of Waterbury, Conn., has published a new 16-page bulletin describing its new Microact and other electric-type Pyromaster controllers. The several different types of controllers are illustrated and described, contact and load circuit wiring diagrams are given, and typical applications are indicated. Copies of the bulletin can be secured by writing to the company.

Yes, size is important in a pinch—and in slashing cotton warps, too, where the size compound you use may definitely determine weave-room efficiency.

Houghton's HOUGHTO-SIZE offers you many proven advantages: low kettle cost, high breaking strength, elasticity after sizing, reduced shedding, easy desizing, more weavable warps, fewer loom stops . . . . all these plus helpful checking of your sizing procedure by means of the exclusive Houghton Size Check-Up Test.

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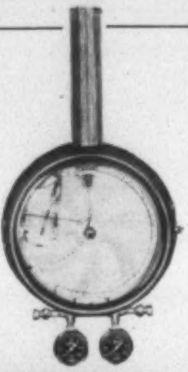

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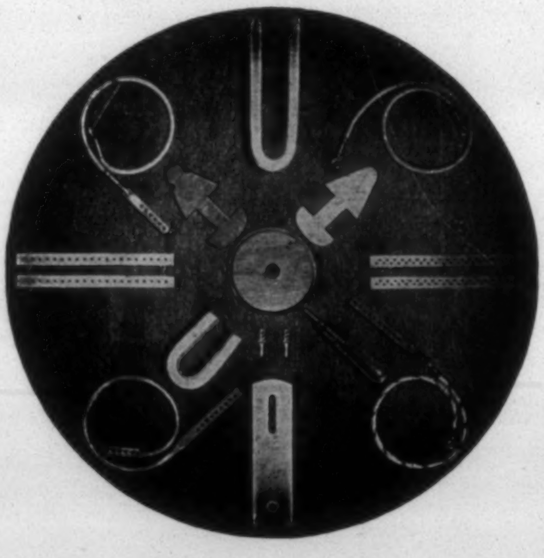

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Buffalo Electro-Chemical Co. To Expand

The Buffalo Electro-Chemical Co., Inc., manufacturer of hydrogen peroxide, persulphates and other percompounds used in the textile industry, has completed plans for an expansion program that will cost approximately $1,400,000 and will increase output by 60 per cent, it has been announced by Charles A. Buerk, president. The program, which is expected to be completed by Jan. 1, includes the erection of an addition to the River Road plant costing more than $400,000. The remainder of the planned expenditure will go for machinery and equipment, Mr. Buerk said.

Meanwhile, voting trustees representing a group of stockholders of the company have filed suit in United States District Court in Buffalo seeking to regain control of 800 shares of capital stock which have been held since November, 1942, by the U. S. Alien Property Custodian. The shares are part of a bloc of 1,600 held in the blocked account for Margot Francke of Aarau, Switzerland. The 800 shares were transferred, the complaint charges, to Miss Francke by her sister, Mrs. Ralph von Falkenstein, whose husband was Germany. The suit asserts that Mrs. von Falkenstein divorced her husband Sept. 16, 1942, and has regained her Swiss citizenship.

1943 Set As Wool Fabrics Price Base

To pave the way for reductions in the prices of woolen and worsted suits, coats, dresses and other items of civilian clothing, mills turning out fabrics for these garments will be required to return their average prices to the averages of 1943, Price Administrator Chester Bowles said June 5. "This maximum average price order, the third of its kind issued by OPA, brings us close to the goal announced by the agency and the War Production Board early in the year—to convert a larger proportion of the civilian fabric supply into essential garments, priced to fit the pocketbooks of low and middle income families," Mr. Bowles said.

"The order should reduce prices for wool woven fabrics about seven per cent from current levels, and for wool knit fabrics, about four per cent. This means that garment manufacturers' fabric costs will be cut, making it possible for them to obtain fabrics to produce, for eventual sale to consumers, at their 1943 patterns of clothing price lines." The order became effective June 9. Beginning with the July 1-Sept. 30, 1945, quarter, each woolen and worsted mill will have to reschedule its production of price lines in a way calculated to maintain or reduce its weighted average price for all fabrics to a point no higher than its 1943 maximum average price. Within this framework, of course, mills will continue to price individual fabrics under the regulations that apply now. Manufacturers may choose the entire year 1943 for a base period, or the two half years of 1943, or the four quarters of 1943. (The maximum average price order for rayon mills limited the base period to the first half of 1943.)

McPherson Firm in New Quarters

The engineering offices of John A. McPherson Co. at Greenville, S. C., have been moved from the Peoples National Bank Building to a new location at 408 South Main Street. Company officials have stated that the growth of the business has necessitated more extensive quarters.

Sizing Spun Rayon Warps Studied

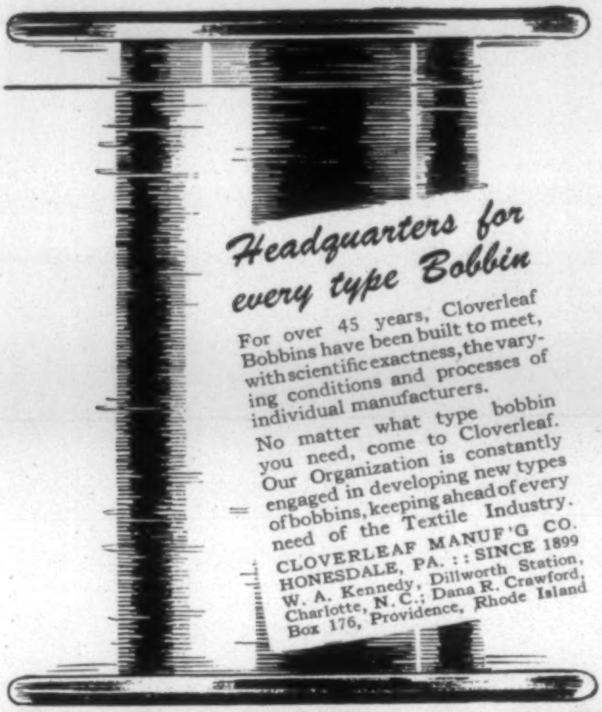
An increasingly important step in the production of cloth, due to the development of improved spinning and weaving equipment which has made possible spinning of finer yarns and weaving at higher speeds, has been the sizing of warp yarns prior to weaving. Also the introduction of synthetic staple fiber in the textile mills has created new problems in processing methods. Outstanding among these is warp sizing.

The results of a specially sponsored confidential research project upon the sizing of yarns made from spun viscose rayon have been released for publication. This research was conducted by the Textile Research Institute at the North Carolina State College school of textiles and the laboratories of the Textile Foundation in Washington, D. C. The experiments reported were designed to study the warp sizing problem in terms of existing methods and equipment, and the results suggest some new methods of approach to this complicated problem.

In the course of this study various factors were investigated such as the effect of stretch in slashing, abrasion resistance of the sized yarns, and the extent of penetration by the sizing material. The comparative efficiency of sizing agents was determined and the relationship between the weaving efficiency of sizing materials and the mechanical properties of films made from these materials was studied. A summary report of this study, comprising 96 pages, has been prepared and may be obtained at a cost of $1.50 from Textile Research Institute, Inc., 10 East 40th Street, New York 16, N. Y.

J. S. Bache & Co. Is Reorganizing

J. S. Bache & Co., one of the largest brokerage houses in the country, is reorganizing effective June 1, and from that date the firm will be known as Bache & Co. At this time all interest of the late Jules S. Bache by his estate ceases, and Clifford A. Michel withdraws as a general partner. In the reorganization plans, seven new general partners will be admitted, along with six limited partners, and the firm will have a capital in excess of $4,000,000. The new general partners are John J. Ryan, Jr., James C. Ryan, Frank T. Ryan, A. Charles Schwartz, James A. Fayne, Laurence B. Rossbach and Sam H. Sampliner, while the limiteds partners are Lieut. Joseph M. Ryan, Charles A. Blackwell, Charles R. Blakely, Adrian C. Israel, Russell E. Sard and Lieut. Adolph Woolner. Harold L. Bache, son of the firm's founder, will head Bache & Co.



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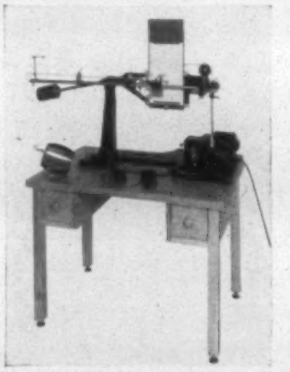

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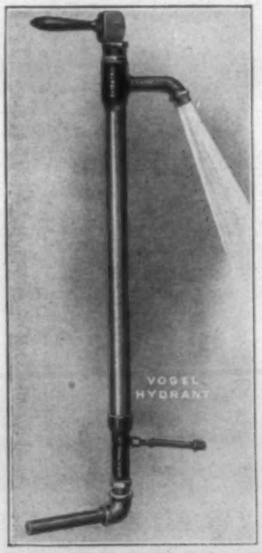

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Henley Paper Co. Announces Expansion

In expanding its operations to prepare for post-war activities, Henley Paper Co. of High Point, N. C., known to Southern circles as "the oldest paper house between Baltimore and Atlanta," has completed negotiations through which the ownership of the long-established Southern Paper Products Co. at Asheville, N. C., passed to the High Point firm. Officials of the purchasing company said that Southern Paper Products, founded by J. L. Widman 20 years ago, would continue to operate with the same sales and office organization maintaining its customary coverage of western North Carolina, Tennessee and South Carolina. Its lines, however, will be expanded with paper and paper products heretofore handled exclusively by the Henley company.

The Henley company, which recently changed its name to that of its chief owner to conform to an industrial tradition, was established in High Point 39 years ago as the Parker Paper Co., with salesmen traveling over what was regarded as an extensive area. Under the present management, which purchased the company in 1932, this area has been more than doubled. Including territory which has been served previously by the Asheville enterprise, the company now extends its sales operations into Virginia, West Virginia, North and South Carolina, Georgia and Tennessee.

Several years ago the company made an intensive analysis of merchandise lines and sources in order to readjust its line of products to conform best to major demands of the foremost Southern industries. Currently the company distributes products ranging from fine and industrial papers to jute webbing, rope, twines and sewing thread to buyers in its area. The purchasing company has already established warehouse and sales divisions in Gastonia and Charlotte, in addition to the offices and central warehouse in High Point. As supply conditions are relieved, President A. B. Henley and his associates expect to put into effect, in the home company and the organization just acquired, a variety of new plans in selling policy and methods of distribution.

Cotton Research Produces Valuable Information

Wartime research projects on cotton at the Southern Regional Research Laboratory, New Orleans, La., have resulted in developments that will have important peacetime applications, according to officials of the U. S. Department of Agriculture's research administration. Among the results of research to develop an improved cotton tire cord are a cord with improved heat resistance, and another with greater tensile strength than is obtained with present commercial cotton tire cords processes. The investigators declare without qualification that cotton cords can be manufactured which are definitely superior to the types of commercial cotton cords now being produced, and further improvements can be expected as more information is obtained and applied.

Another wartime development at the laboratory which will find important peacetime uses is a process for rotproofing cotton goods that is more effective than any other known treatment. Cloth samples treated by the new process have retained more than 80 per cent of their strength after burial for a year in a damp, warm soil known to be rich in the organisms that cause rotting. In contrast, untreated goods in the same soil rotted to pieces in about a week. The investigators have also developed a flame-proofing treatment for cotton fabrics that has definite advantages;

although effective treatments have been available for a number of years, usually they have made the fabric too stiff and heavy, or washed out too readily. Fabrics treated by the new process retain their flame resistance after many launderings, yet the physical characteristics are changed but little. The process makes flame-proofing of outer garments more practicable.

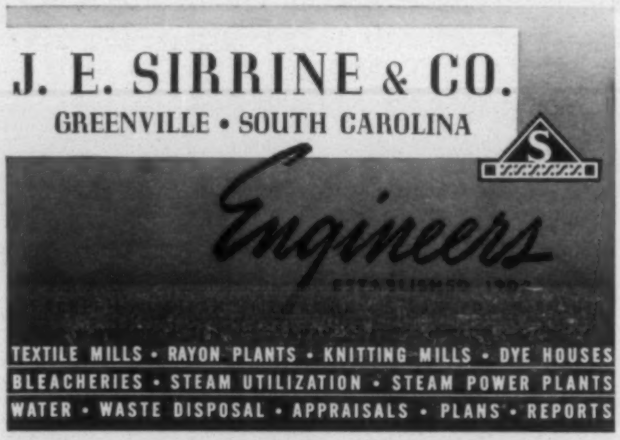
Whitin Machine Works To Build Plant

Whitin Machine Works plans to begin construction of a new Southern branch headquarters in Charlotte as soon as priorities for the needed building materials are granted by the War Production Board, it has been announced by R. J. Dalton, Southern manager for the company. A large tract of land on Wilkinson Boulevard was purchased some time ago for this purpose. Plans for the new structure have been drawn up by J. E. Sirrine & Co. of Greenville, S. C. The Whitin company, which has headquarters in Whitinsville, Mass., operates a large repair shop in Charlotte for textile machinery, but expanding business has caused the present housing to become inadequate, Mr. Dalton stated. He explained that the new building will be used to continue the company's business of repairing textile machinery and that no added activity is planned.

Controlled Materials Quotas Held To Level

The policy of the War Production Board will be to grant no supplemental allocations of controlled materials beyond the levels already scheduled for the third quarter of 1945, except when absolutely necessary to assure needed additional production of items of highest urgency to the civilian economy, WPB said recently. This was announced, WPB said, in a move designed "to wean civilian industry away" from a dependence on government allocations now that cutbacks in war production are freeing increasing amounts of materials previously needed almost exclusively for the war and war supporting efforts.

This means that the production of civilian items above the levels already approved for the third quarter will have to be made without priorities assistance and with materials bought on the "free" market, WPB explained. This policy was set forth in a new WPB internal document (General Program Order No. 5-10, amended, entitled: Programming Production for Non-military Requirements), which specifies that no supplemental allotments will be given except under certain urgent circumstances.



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AKRON BELTING CO., THE, Akron, O. Sou. Reps.: Ralph Gossett and Wm. J. Moore, 15 Augusta St., Greenville, S. C.; The Akron Belting Co., 406 S. 2nd St., Memphis, Tenn.

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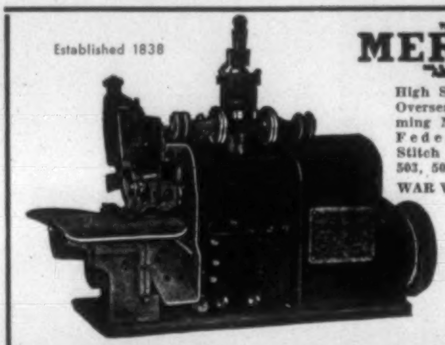

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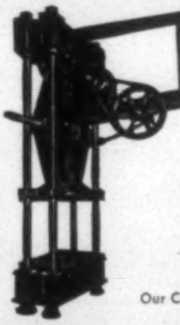

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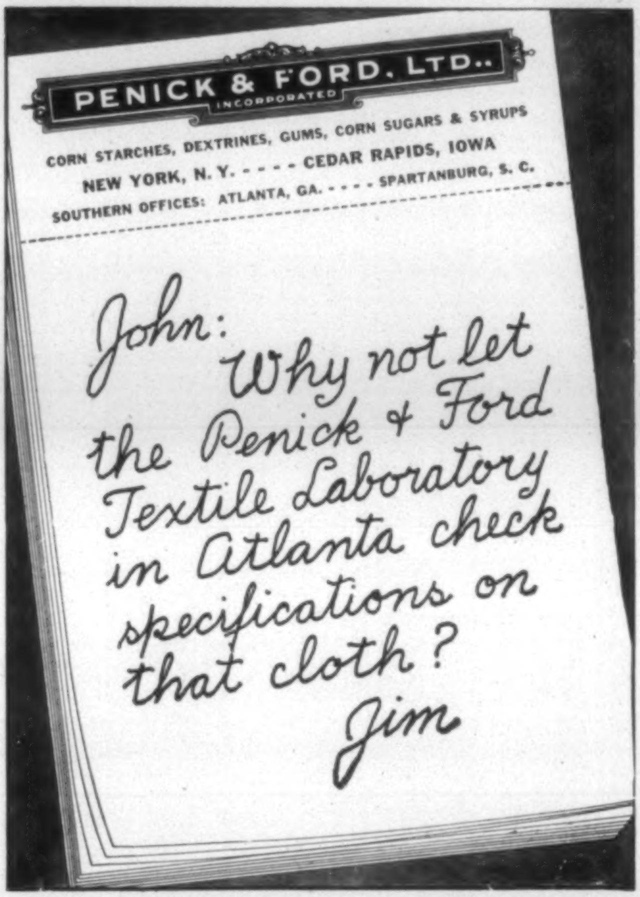

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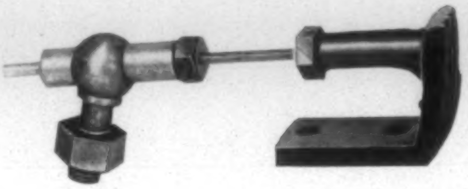

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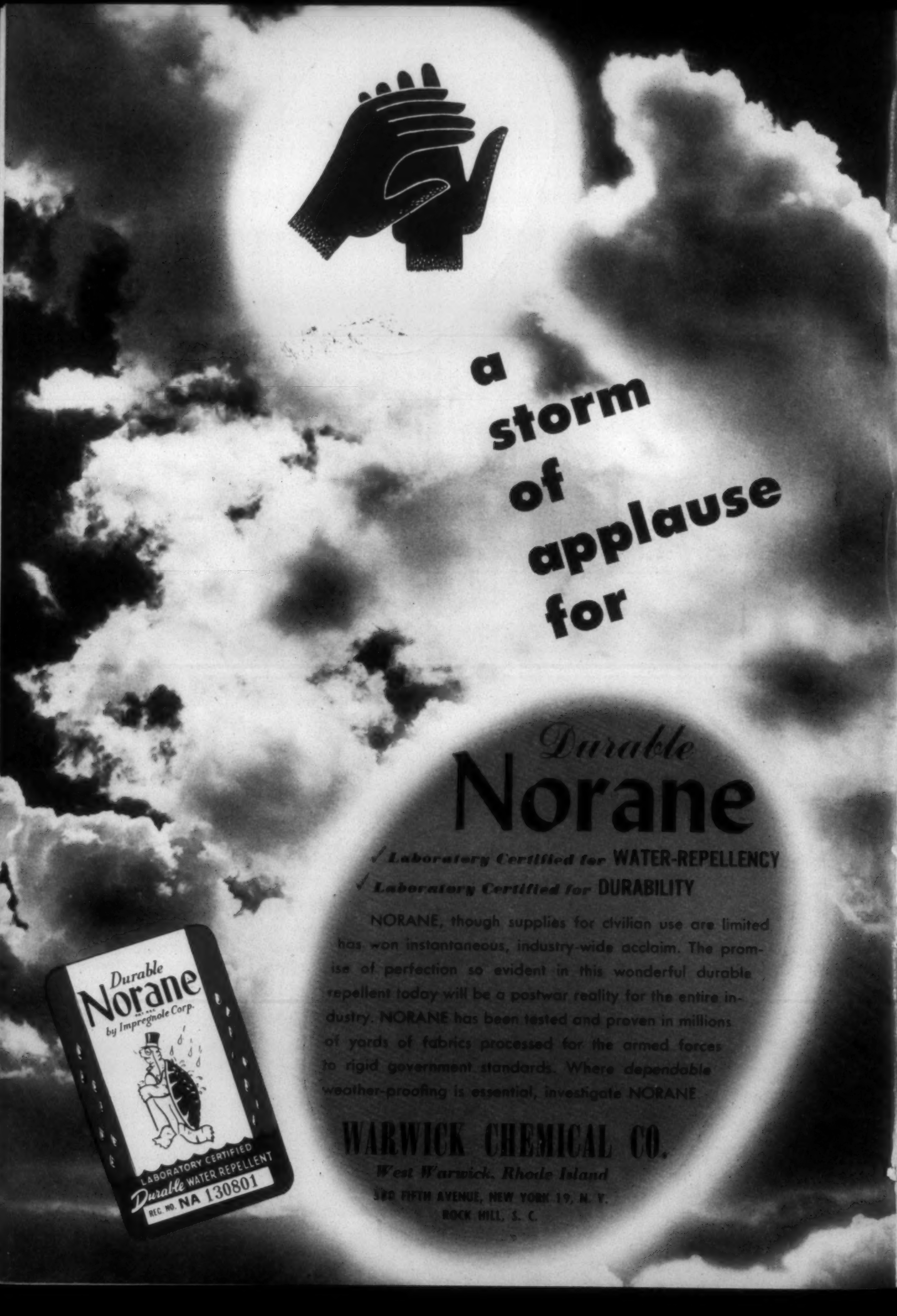

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